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MR. ABERNETHY'S

PHYSIOLOGICAL, PATHOLOGICAL, AND SURGICAL OBSERVATIONS;

DELIVERED IN THE

ANATOMICAL COURSE OF LECTURES

At St. Bartholomew's Hospital.

On the Stomach.

It may be questioned from the human stomach, whether man's stomach is *carnivorous* or *herbaceous*; for my own part I know nothing about it, except that I think a man's stomach is very like a lion's, and that a lion's stomach is certainly carnivorous. But that a man was meant to eat herbs is to be collected from his teeth, from the articulation of his jaw, and from his masseter muscles. That he is capable of living also on animal food is perfectly clear; and it is evident, taking both the alimentary canal and the stomach together, that he was meant to feed on both, for the alimentary canal is between herbaceous and carnivorous.

There was a time when persons thought that the *wrinkles* in the internal coat of the stomach, rubbing against each other, produced hunger; thence arose the vulgar phrase—"Come, take the wrinkles out of your stomach," by satisfying the appetite; but all that is just nonsense, and I may as well speak upon that now.

Hunger and *Thirst* are mere *sensations*, sensations of the stomach, and they seem really to be incompatible with one another; for a thirsty animal is not hungry, nor is a hungry animal thirsty. Hunger does not produce thirst, and an animal does not drink till it has digested the food. People will say otherwise; they will say, I have seen a cow drink the moment she began to eat. Well, so they may, for that is just the time when she should drink; the stomach is then empty, and the water that she then drinks does not remain above what the cow may have just at that instant ate, but it passes down into the stomach and fills the paunch, enters into and fills up the *cooking cavities*, as I may call them. People feel hungry when their stomach is full; this you will frequently find to be the case. A healthy young man, after eating a pound of beef steaks, and after having washed them down with a good quantity of strong drink, will be as hungry as if he had never seen the beef steaks, and ready to swallow a barrel of oysters. (Laughter.) O, there are people who eat continually, and are never satisfied but when they are eating. There was a woman in this Hospital who was eternally eating; they gave her food enough, you would have thought, to have disgusted any body, but she crammed it all down; she never ceased but when her jaws were fatigued. She found out, that when she put her feet into cold water she ceased being hungry; and therefore, when she had a mind to rest her jaws, she got a bucket of cold water, plumped her feet and legs into it, and there she sat till she thought she would up and at it again. (Laughter.) O, all this is a morbid sensation; extreme thirst is a morbid sensation, and you must cure the morbid sensation of the stomach if you want to cure thirst; but the way people generally take to cure it keeps up the thirst rather than allays it.

Now in looking at these follicles in the internal coat, some people say they are for secreting *mucus*; others say, they are for secreting the *gastric fluid*. Now every person knows that the stomach does secrete mucus and a peculiar liquor, but I do not see the sources of this; we see distinct sources in the intestines, but we do not in the stomach; at least I can't.

With respect to the *physiology* of the stomach, to the best of my knowledge and belief, Mr. Hunter was the first man who broached those opinions which are generally accredited, or have not till of very late been disputed, which is, that digestion depends upon the sufficient quantity of the liquid which the stomach secretes—of the gastric fluid, and that this liquor has the properties of rendering any nutritive matter solid, so that it should not pass through the *pylorus*, until it had undergone this peculiar solu-

tion by the gastric fluid. Well, if the white of an egg is given to a hungry dog, in a few minutes it will be as *hard* as if it had been boiled for hours. The juice of the stomach instantly curdles milk. Take the gastric fluid out of the stomach of a calf just born, and it has most curious properties; the little of that fluid that is in the stomach they dry in it, then dissolve it, and then curdle gallons of milk with it, as you all know. Then, as the fluid of the stomach has the power of dissolving that which is nutritive, the question is, why don't it dissolve itself, it is flesh? John Hunter would never boggle at an answer for that, and he says, that the life of the stomach preserves it. There is no chemical agent will act on it. Worms live in the stomach, and yet there is no doubt but that a meal of dead worms would form a very nutritive repast to a dog. But does the fluid ever dissolve the stomach? Yes, it does. The proof of this is, that if a man eats a large meal, and is suddenly afterwards killed by a blow on the head, as has often occurred, you will see that the gastric fluid is acting, not on the food, but on the stomach, that it makes a hole in the stomach, and that the food gets through that hole into the belly. Various stomachs have been examined having these appearances. But Sir Astley Cooper told me of a case where a person was met with after death under these circumstances: the body was laid in what they would call *a very unguin attitude*; it laid with the thorax lower than the abdomen, and upon opening the body, the stomach was found to be dissolved at its *lesser* arch; it is usually at the *larger* arch where it is dissolved; in that case the diaphragm was dissolved, and the stomach was in the lower part of the thorax.

Some people say there is no gastric juice; why? Because we cannot get it. And why can't we get it? Because it is not secreted but at certain times; it is only secreted when it's wanted. There are many who think even now, that it's the *vital powers* of the stomach, and *not* the *liquid* that causes the digestion. Well, they may entertain that notion if they please, but all I am bound to do is, to tell you what appears to me to be the most reasonable physiology.

There are animals who feed on what appears to be the most innutritive to others—the *woody* substance of things. But what do they do? They pour upon that substance, at first, a liquor, and then they eat it: there is a liquor evidently runs from them, and dissolves that which is afterwards to become their food.

Now, I say, analogy would lead us to suppose—and I think I have told you enough of facts, to warrant us to a pretty considerable extent in believing that the stomach doth prepare a liquor of this kind. Mr. Hunter thought so; and he was employed to open the body of a patient of Sir John Pringle's, in whom the stomach was dissolved. To Sir John Pringle, it was new; Mr. Hunter said, O, I have seen it frequently, this is not disease—it is the effect of the gastric fluid. Sir John Pringle, who was president of the Royal Society, urged him to write a paper upon it, and he did. Now, two or three years afterwards, a Dr. Stevens, who was preparing his *inaugural thesis* at Edinburgh, met with a man who was a *stone eater*—a man who would swallow stones, and let you hear them rattle in his stomach; and the Doctor thought this would be a good time for making experiments; therefore, he got him some food consisting of balls, ivory balls, metallic balls perforated with holes, which he gave him filled with animal substance; for it was said that irritation might be, and that trituration must be, the cause of digestion; but trituration was not the cause of it, as appeared from the balls after they were voided. Had putrefaction destroyed the whole? O, the time was too short for that. Well, he went on, and gave the balls, filled with matter, to carnivorous animals, but they also voided them undissolved. It was eight years afterwards, when this was taken up by another person, but yet no one speaks of Mr. Hunter but myself. I believe him to be the author of these opinions; certainly that has been doubted, it has been contended against, but I believe not on sufficient grounds. I may just mention further, that if you give putrid meat to a hungry dog, it will sweeten in the dog's stomach, and that the gastric fluid of a dog's stomach has been applied to sores.

Now this is all I have to say about digestion; but here I come to a very curious point, indeed; which is, that all Mr. Hunter's notion of digestion has been, I may say, proved by experiments on the stomach; and which is, that nervous energy is required for secretion; that secretion depends upon a particular action, and that the nerves being incapable of exciting and governing that action of secretion, it will not take place. *Dr. Haighton* divides the eighth pair of nerves in a dog, and curiously enough the dog takes its food at regular periods when it's given to him, but he shows manifest signs of sickness and disquiet; something is voided from his bowels, as aforetime, but the dog wastes away, and becomes nearly a skeleton. In the course of a certain number of weeks, the nerves become united, and the dog digests his food, looks well, and again recovers his flesh. Dr. Harwood, of Cambridge, feeds two dogs of the same age, brothers or sisters, in an equal state of health, with flesh meat; they are pointers; and after he has done so, he decoys one of them into the fields and hunts

it—induces it to hunt, to exercise it: after hunting it for four hours, he brings it home and kills both the dogs. The one that was hunted has all the flesh in his stomach, softened a little, but not digested; the other, which had been suffered to do what Nature dictated,—that is, to lie down by the fire and go to sleep, has all his food digested, and is found in the high road into the blood vessels; the lacteals are all full of the chyle which they have absorbed.

Now these things deserve the particular attention of medical men; because, what is the chief object of medicine, in a great number of cases, but to give strength to patients? For my own part, I can see no permanent source of strength but in digestion. You may give *bark*; aye, and if the stomach will digest it, it will give strength, but I know not how it will give strength otherwise. We ought to give caution to patients, not to take too much exercise after eating; to keep themselves quiet, and not to allow their minds to be disturbed, for you know the eighth pair of nerves comes from the brain to the stomach, and if the mind be agitated and disturbed, will the stomach digest food, or will it even receive it? No; O, there is a great sympathy between the mind and the stomach: if a man has received some intelligence which really distressed or annoyed him—thoroughly distressed him; if a merchant heard of the loss of a great adventure at sea; if a surgeon heard that a patient of his had died in whose fate he had taken great interest, who he thought would have recovered, and by whose recovery he would have had credit secured to himself; or, if a lover heard that his mistress had cheated him (laughter) just at the time he was sitting down to dinner, would he eat his dinner do you think? O, no; or if he heard of the tidings just after he had dined, would what he had taken digest? O, no. Well, to secrete, there must be vital actions regulated by the nervous system; and, in every part of the physical body, you will see that fact proved. Now I go on: the food is digested, but what does it become? Not chyle in the stomach, but a kind of pulpy adhesive sort of matter—sticky sort of matter, of no very pleasant odour. People vomit after they digest their food, when they have had a blow on the head; and what are we to call that? O, it is generally called chyme. The stomach digests the food, and it is certainly called chyme. I may inform you, that there have been opinions entertained that the right end of the stomach is more calculated for food, and the left for the fluid. But these are things, I believe, concerning which we have no absolute knowledge; and, therefore, we are ignorant of them.

LECTURES

ON THE

Diseases of the Nervous System,

BY

DR. CLUTTERBUCK.

LECTURE VIII.

On the Varieties of Idiopathic Fever.

NOTWITHSTANDING the obvious impropriety of the term *idiopathic fever*, according to the view I have given of the subject, I am nevertheless compelled to employ it at present, on account of the constant use that is made of it by writers. In proportion, however, as the real nature of the disease is understood and admitted, it will be less and less necessary to use terms that are not only unmeaning, but which often tend to mislead.

Idiopathic fever has been usually divided into a great number of *species*, each of which is supposed to differ essentially from the rest; as if they were of absolutely different natures. Besides the common and generally admitted division of fevers, into *continued* and *intermittent*—*epidemic* and *endemic*—*contagious* and *infectious*—other minute distinctions have been made, founded upon circumstances of a trivial nature, and which can be considered in the light of *varieties* only, depending upon causes that are accidental, and foreign to the disease itself. Sometimes the distinction has been founded upon *degree* merely; whence the terms, *mild* and *malignant*—sometimes, upon *duration*; as in the *ephemeral* or *diurnal* fever, as compared with the *slow* or protracted cases (*febris lenta*)—sometimes, upon the predominance of a particular symptom, and that perhaps accidental; as the *comatose, cephalalgic, catarrhal, gastric, nervous, bilious, rheumatic, sweating fevers*; and many others:—sometimes again, upon the place or situation in which the disease has most frequently appeared; as the *gaol, hospital, ship*, and *marsh* fever. These numerous, and for the most part, unimportant distinctions, (unimportant, at least, in regard to the nature of the disease) have rendered the subject altogether obscure and difficult. This, as it appears to me, can only be obviated by the adoption of some general principle, that will serve to connect the whole together into one simple and common system. Such, I think, is the one I have

endeavoured to lay down; where the particular *seat* and *nature* of the disease are assigned, and which will be found to embrace all the different *genera* and *species*, as they have been deemed; as well as to account for the almost innumerable varieties, the occurrence of which is casual and accidental only. In the details I am about to offer to your notice I shall take anatomy and physiology for my guides, as far as possible; for whatever is not consistent with these is unworthy of our regard.

Now after giving a short explanation of the terms in ordinary use to distinguish particular kinds of fever from one another, such as *epidemic* and *endemic*—*contagious* and *infectious*—*common* and *specific*—I shall attempt an arrangement of the subject which, I trust, will render it sufficiently simple and intelligible; and having done this, I shall describe more minutely the different *species* and *varieties*, as far at least as is necessary for the purposes of practice.

An *epidemic* disease then, is one which spreads widely through a country, and sometimes over a great part of the globe; the result of some general influence, commonly ascribed to the atmosphere, the natural condition of which has been supposed to have undergone some change, in respect to temperature, elasticity, or other less obvious quality; or to the admixture with it of some noxious agent, the nature and origin of which are wholly unknown. The most striking example we have of this kind of fever, is the *epidemic catarrh*, or *influenza*, as it is usually denominated, a peculiar combination of *idiopathic fever*, or brain affection, with *catarrh* or inflammation of the mucous membrane of the air-passages. Many other diseases of a common kind are observed to prevail with extraordinary frequency, at certain times and seasons; while their occurrence at other times, is rare. Such is the case with *pleurisy*, *rheumatism*, and *hepatitis* of the acute kind; all of which are observed to prevail after a cold east wind has blown steadily for some weeks. To these, as well as others, the term *epidemic* is applied. Even the fevers termed *specific*, that is, such as arise only from particular *contagions*, as *small-pox*, *measles*, *scarlatina*, and others, are evidently at times under the influence of some epidemic cause, which occasions them to be much more rife and fatal in some seasons than in others.

Endemic diseases, on the other hand, are those which are confined to a particular district of country, and which depend upon some local cause, commonly an emanation from the soil. Thus *intermittents* and *remittents* are *endemic* in marshy situations. The *yellow fever*, as it is called, is *endemic* in the West Indies, North America, Gibraltar and many parts of the Mediterranean, as well as in various other parts of the world; and evidently depends upon *miasmata* arising from the soil of those places, and generated under the combined influence of heat and moisture. The *plague* itself seems not improbably to belong to this class of *endemic* or *miasmatic* fevers.

The terms *contagious* and *infectious*, as applied to fever, have given occasion to much dispute, as to the sense in which those terms are to be employed. And to this difference in regard to the use of terms, is owing, I believe, much of the difference of opinion that subsists among practitioners, with respect to the contagiousness or non-contagiousness of certain diseases. *Contagion* has not always been sufficiently discriminated from either *epidemic* or *endemic* influence; though there is a wide difference between them. The terms we employ on these and other occasions, can seldom be taken in a strictly literal sense; but are more or less figurative or metaphorical in their signification; the use of them accordingly is always in a degree arbitrary; which makes it necessary they should be accurately defined, in order to guard against misapprehension. Now I think the least objectionable idea that we can attach to a *contagious* disease, is, that it is one which is produced by a peculiar *virus* or poison, generated in the body of an animal, while labouring under a peculiar form of disease; and which *virus* has the property of exciting a similar disease in others to which it is applied—whether in a solid, fluid, or gaseous state, seems quite immaterial. Now there is a considerable number of such, with the general characters of which we are pretty well acquainted; and possibly there are many others, that operate from time to time, so as to excite peculiar modifications of disease, but which escape our observation.—Some of them excite diseases, unattended with any febrile symptoms, or general disorder of system; this is the case with the *syphilitic*, *psoric*, and others. Many again, are marked by much febrile disorder, and which therefore are termed the *febrile contagia*; such as those producing *small-pox*, *measles*, *scarlatina*, and several others. These latter are to be considered as perfect examples of *contagious fever*; to which, therefore, as a test, we ought to refer, when discussing the question of the *contagiousness* of particular fevers.

The term *infection* has been often used synonymously with *contagion*; and indeed the distinction between them is altogether arbitrary, since the fevers called *contagious*, might, with equal propriety, be termed *infectious*, as in fact they have often been.

Still, there is a difference of opinion as to the sense in which these terms ought to be employed. This however is a subject I shall again have occasion to allude to, when I come to speak of ordinary *continued fever*, and its mode of propagation.

The terms *common* and *specific*, as applied to fever, are sufficiently understood. The former is applied to fevers that proceed from common causes; such as exposure to cold, atmospheric changes, spirituous drinks, narcotic substances swallowed, mechanical injuries, violent exercise, or, in short, any of the common causes of inflammation of the brain: while the *latter* is used to denote such causes as are peculiar in their nature and origin, and which act by peculiar laws, so as to generate fever with distinctive characters, and which proceed from such causes only. Hence *small-pox*, *measles*, and the rest of the *exanthemata*, or *eruptive fevers*, are the chief examples of *specific fever*. The terms *contagious* and *specific* fever, may be considered, therefore, as nearly synonymous.—It will be a question for our consideration hereafter, whether ordinary *continued fever* properly belongs to the class of *contagious* fevers; that is, whether it is propagated by a peculiar *virus* generated in the body of the sick, as is the case in *small-pox*; or whether in some other way. At present we are to make an arrangement of fevers altogether, confining ourselves to such as have been called, by way of distinction, *idiopathic*.

You will perhaps best understand the varieties to which fever is liable, if I first point out the causes upon which this diversity depends. Now there are several causes that have this effect of varying the character of fever; as,—1st. The degree of the inflammation existing in the brain. 2dly. The particular part of the organ in which the inflammation is seated. 3dly. The stage of the disease. 4th. Season, climate, situation, age, individual constitution, and mode of life. 5th. Complication with other diseases. 6th and lastly, The nature of the *exciting cause*. These all require notice, in order to a perfect understanding of the subject.

1. The first circumstance tending to vary the character of fever, is the *degree* of inflammation present in the brain, in which the disease is supposed essentially to consist. Inflammation of the brain, like that of other organs, might naturally be expected to give rise to symptoms more or less acute, in proportion to the actual violence of the disease. In comparison, however, with other organs, a striking difference will be found to exist here; and that both in regard to the *local* characters of *pain* and *disturbance of function*, in the part primarily and essentially affected; and also, in the state of the general system.

Thus *pain*, from the degree of which, in most other inflammations, we infer the violence of the disease, is, in the case of fever, most equivocal: so much so, that the pain in the head (the part primarily affected) is not uncommonly in an inverse proportion to the real violence and danger of the disease, and is generally less and less complained of, as the fever is advancing in its course, till it soon ceases to be felt or acknowledged altogether. This is easily understood, when we consider the little sensibility the brain naturally possesses; and further, that the patient soon becomes unconscious of, or incapable of expressing, his sensations. Other organs, again, commonly exhibit greater disorder in the state of their functions, in proportion as the inflammation is more violent; whereas, in the brain, from the peculiar disposition of parts, and especially its confinement in an unyielding bony case, the effect of inflammation when extensive and violent, is first to induce arterial fulness, and, as a consequence of this, compression of veins; whereby the circulation through the organ is impeded, and the functions interrupted, in the manner I have before explained to you. It fact, it is only in the slighter and more partial affections of this organ, that a great and active disturbance of its functions is observed. In the more violent and extensive inflammations of the brain, the organ is soon rendered incapable of carrying on its functions, and a state bordering on apoplexy takes place; as we see in the latter stages, and the most aggravated forms, of both *hydrocephalus*, *phrenitis*, and *idiopathic fever*.

There is a great difference, likewise, in the state of the general system, in cases of cerebral inflammation, as compared with others. This difference arises from the paramount influence exercised by the brain over all other parts. When other organs are suffering inflammation in a considerable degree, so as to excite constitutional disorder, the affection (*pyrexia*) is, for the most part, simple in its form, consisting in little more than an excited state of the general vascular system, indicated by a quick and generally hard pulse, increase of animal heat, a white fur upon the tongue, and suppressed or altered secretions. The state of the system, in *idiopathic fever*, is far other than this; and, at the same time, it differs widely, according to the degree of disease in the brain. In very mild and simple states of fever, where the brain is so slightly affected as to be able to carry on its functions in a tolerable manner, the general system is affected nearly as in other inflam-

mations: that is, the pulse is strong and full, in proportion to the general strength of the patient, the tongue whitish, and the heat of body great. This is observed in what is called *inflammatory fever*, the *synocha* before mentioned, a form of fever of great apparent violence, and alarming to the by-standers, but in reality attended with little danger; since the violence exists only in regard to the *secondary* symptoms; while the organ in which the disease is primarily seated, is comparatively but little disturbed. But in cases where the inflammation in the brain is violent and extensive, (the *violent* or *malignant* fever,) the *arterial fulness* that takes place, as one of the consequences of the increased arterial action, by making pressure on the *veins*, soon interrupts more or less the circulation of the brain, and, in the same degree, impairs its functions; which, accordingly, are oppressed often in the highest degree, producing, as I have just remarked, an apoplectic state of the organ, differing from common or simple apoplexy, in being combined with the symptoms of inflammation. Now, in this case, the effect is not confined to the brain itself and its own *special* functions; but, in consequence of the dependence of every part upon the brain, is extended universally throughout the system. Not only is the general *sensibility* of the body nearly lost, the *voluntary power* annihilated, and the *mental energy* in a great measure destroyed, but the whole vascular system, with its dependencies, suffers. The heart and arteries are enfeebled in their actions; the pulse is weak and soft; the circulation imperfectly carried on; and the blood in the extreme parts nearly stagnant; acquiring the dark or *venous* character, and losing, at the same time, in a great measure, its power of coagulating; while the vessels themselves, in consequence of their diminished vitality, lose their power of retaining the blood in them, so that it escapes into the surrounding cellular texture, giving rise thus to *vibices* and other defœdations of the skin; or it issues from the mucous surfaces of the alimentary canal or other parts, in the way of hæmorrhage; the blood that escapes being always dark in colour, and little disposed to coagulate. Should inflammation (to which there appears a great disposition throughout the system) arise, the inflamed part evinces its want of vitality, by the disease quickly ending in gangrene, followed by sloughing, and this again by ulceration, that shows no tendency to heal, till the brain is restored to its natural state, and enabled to resume its functions: in other words, till the fever ceases. The *secretions* every where show the same tendency to decomposition; whence the black and fœtid *sordes* that accumulate about the mouth; the offensive discharges from the intestines and kidneys, and even from the skin.

Such an extreme prostration of the animal powers altogether, seems at first inconsistent with the notion of active inflammation; but when it is considered that the brain is the seat of the disease—that, at the outset, there are the strongest signs of increased vascular action about the brain, such as redness of the eyes, flushing and heat of head, and throbbing of arteries,—and that the natural result of this increased vascular action, and determination of blood to the brain, is a state of oppression of the organ, which renders it unfit to carry on its functions,—it is not to be wondered at, that the influence of this should be felt throughout the system—or that the vitality of the whole should be impaired, and especially that of the more remote parts. The brain and the rest of the system are, in fact, in opposite states. In the former, the vascular action is increased, in the latter diminished; while, from the state of oppression that soon takes place in the brain, the rest of the system is, as it were, paralysed.

Another cause of diversity in the character of fever, is the particular *seat* of the disease in the brain. In most cases, the whole organ appears to suffer in some degree; as all its functions are more or less disturbed. There is, however, great inequality in this respect. In some cases, the sense of *vision* is particularly disturbed, as evinced by the intolerance of light; in others, the same is observed with regard to *hearing*. Sometimes the *voluntary power* is irregularly exerted; (as where *subsultus tendinum* takes place;) but not in others. In some, *delirium* appears at an early stage of the disease; while, in many cases, this symptom is altogether wanting. In some fevers, not otherwise remarkable, the *pulse* is extremely *quickened*; in others, it is too *slow*; while there are many instances of fever, even of a violent and dangerous kind, in which the *pulse*, during a considerable part of the disease, deviates but little from the natural standard. Some fevers again, set out with *vomiting*, hardly to be restrained by art; in others, this symptom is not observed. These varieties in the character of fever, and which are occasionally met with in all the different species of the disease, are only to be explained upon the principle laid down, namely, the locality of the inflammation, and the different degree in which different parts are affected at different times.

It is well known how greatly fever is liable to be varied by the circumstances of *season*, *climate*, *situation*, *age*, and the *individual constitution* of the patient. In the

spring, for instance, fever is apt to prevail with *inflammatory* symptoms, that is, with strong and full pulse; in the *autumn*, it is more likely to assume the *malignant* shape. In *hot climates*, fever is violent, and runs quickly through its stages, often to a fatal termination: in *cold* ones, the disease is milder, and, at the same time, more protracted. In large towns, and in an impure state of the air, fever of the *low* or *nervous* kind is apt to prevail; while in the country, and in elevated situations, we more commonly meet with fever of the *inflammatory* kind.

The *age* of the patient is another circumstance that merits consideration, especially in a practical point of view. The susceptibility, with regard to all impressions, is much greater, generally speaking, in young than in old subjects. This is to be ascribed to the greater vascularity of the brain in early life, and its greater tendency to inflammation in consequence. In *infants*, the slightest causes, either applied directly to the brain (such as mechanical injuries of any kind); or, acting indirectly, by irritation of other highly sensible or irritable parts; are sufficient to excite inflammation in this organ, and which, when once excited, runs rapidly through its course; so as either to terminate fatally within a very short period, or to end in serous accumulation, by which a new train of symptoms is induced. This peculiarity in the brain of infants, serves to explain what has been often asserted with regard to them, namely, that they are not liable to fever strictly so called. All that can be justly said, however, in regard to this point is, that fever in infants has not the same regular and protracted course, as in adults; and that for the reason I have just stated. Agreeably with this you will find, that the older the child is, the more the disease resembles at first ordinary fever, both in its symptoms and duration. This tendency of the brain in young subjects to a more active state of disease, makes it of double importance to have early recourse to decisive measures; and that even in slight affections of the sort; for however mild the disease may be at its outset, it is apt to increase from day to day, while our power over it regularly diminishes as the disease proceeds. I do not hesitate to avow to you (for you may profit by the confession), that I have more than once had occasion to regret the neglect of early and active measures in the case of young persons attacked with fever; such as boys at school; having been lulled into a false security, by the mildness of the early symptoms. In *old age*, on the other hand, the brain is less readily roused into inflammatory action; but, as a counterpoise to this, slight degrees of disease are apt to prove fatal, life in such being held by a feeble tenure.

As in all other diseases, the *constitution* of the individual materially influences the disease. The disposition to fever is very strong in some individuals, and they suffer in consequence repeated attacks: and the disease in such is commonly more violent, and attended with greater danger. There are others, on the contrary, who appear to be nearly exempt from this disease altogether; a difference that is to be ascribed to the different susceptibility of the brain, in regard to the ordinary causes of fever.

It is easy to understand, that *modes of life*, may have their influence upon the disease; and, in no small degree also, the *medical treatment*, and general management of the patient. In persons much addicted to the use of *strong drinks*, fever is always dangerous; for in such persons the brain is already in a state of preternatural excitement, if not of actual disease, by which its disposition to inflammation is increased. By an early use of *stimulants* in the cure of fever, the disease is aggravated; and that which might have been *mild* in its form, is converted into the *violent* and *malignant*: whereas, the adoption of the *antiphlogistic* practice at the very outset of the disease, tends powerfully to secure the patient against a fatal result. It prevents, in general, the occurrence of the *typhoid* state, as it is unmeaningly called.

Another cause of variety in the character of fever, is its *complication* with other diseases. There are numerous instances where fever preserves its simple character throughout; and that, whether it be *mild* or *violent* in degree. In such cases, the symptoms all refer themselves to the brain and its functions, or to such parts as are in more immediate dependence upon this organ; such as the heart and stomach. These are apt to have their functions more or less disturbed, but only in a secondary way, and without themselves becoming actually diseased. But, in the *complicated* states of fever to which I am now directing your attention, there is inflammation in some other part, combined with that which is going on in the brain itself. In these cases, the two sets of symptoms are easily to be distinguished; though they tend in a degree to modify each other. In *hot climates*, fever is apt to be combined with inflammation in the cavity of the abdomen. The *stomach* becoming inflamed, enormous vomitings take place, sometimes of a bilious kind, sometimes dark and grumous, (the *black vomit* as it has been called;) sometimes the *intestinal canal* is the suffering part, and *dysentery* appears, in conjunction with the proper symptoms of fever or brain affection. The *liver* is another part

that is much disposed to disease in hot climates, and inflammation in this organ accordingly, is a frequent concomitant of fever; giving rise in some cases to an excessive discharge of bile by vomiting or stool (*cholera*) or, the discharge of it into the intestines being impeded, absorption is the consequence, and jaundice appears; as in what is termed *yellow fever*; this appearance, however, being by no means constant or essential to the disease.

In *cold climates*, fever is most frequently found in combination with thoracic disease; as catarrh or pulmonic inflammation; sometimes, with *ligamentous* inflammation, in the form of rheumatism. But even in this climate, few cases of idiopathic fever prove fatal, without the occurrence of inflammation in the abdomen, in the form either of *diarrhœa* or of *peritonitis*; the latter, when it occurs, adding greatly to the danger of the disease.

These occasional *complications* of fever with other inflammations, modify considerably the character of the disease; in many instances, with the effect of mitigating the cerebral affection, and in this way lessening the danger altogether; as where catarrh, or diarrhœa, or rheumatism, constitutes the secondary disease. But when *gastritis*, or *enteritis*, or *peritonitis*, takes place in fever, (these being in themselves formidable states of disease), the danger altogether is greatly enhanced. Sometimes, too, it happens, that the proper fever or brain affection subsides wholly, the secondary affection alone proving fatal. In this case, dissection proves nothing with respect to the brain, though this had been the part primarily affected.

The *varieties* of fever hitherto mentioned, depend upon accidental circumstances, foreign to the disease itself. There are others, however, that are essential to the fever, so as to make a part of its character. Such is the case with the fevers termed *eruptive*, the *exanthemata* of the nosologists: where, with all the symptoms that are essential to fever in general, and that serve to mark the existence of the disease, there is found some particular form of inflammation on the surface, by which those diseases are distinguished from common fever, and also from one another. The peculiarity of fevers of this description, is not only observed in regard to the obvious appearances, and the whole course and termination of the disease, but extends also to the treatment, which is governed by different principles. There is abundant reason, therefore, for making such fevers the subject of a separate class, and which, on account of their peculiarity, are properly termed *specific*.

Thus then, the whole tribe of fevers, strictly so called, the *idiopathic* fevers of authors, may be methodically arranged according to the principles just laid down. The first division of the subject is into *common* and *specific*, in the sense above stated. These will form two great classes, which will be found to embrace all the cases of proper or idiopathic fever, however diversified in their character or circumstances.

The first class, or *common fevers*, may be divided into *simple* and *complicated*; the difference between which, you will readily understand, after what you have already heard on the subject.

Simple fever again, may be divided into the *continued* and *periodical* forms; the latter including both *intermittents* and *remittents*, which appear to differ from one another only in degree.

Lastly, the *simple continued fevers* may, for practical purposes, be divided into the *inflammatory*, the *mild*, and the *violent* forms; corresponding with the *synocha*, *typhus mitior*, and *typhus gravior*, of Dr. Cullen's system. These, though mere *varieties*, depending upon foreign and accidental circumstances, require some difference of treatment, and therefore must be separately considered.

In conformity with the plan above suggested, I have constructed a table, for the more compendious display of the subject, and which you may consult at your leisure, and, perhaps, think it worth your while to transcribe. [The Lecturer here laid on the table a *scheme* of fevers, digested in the order above stated.] The arrangement of the subject most useful with regard to practice, will, I think, be the following, and which is the order I intend to pursue.

1. *Simple continued fever*, including the *inflammatory* (*synocha*)—the *low nervous* fever (*typhus mitior*)—and the *violent* or *malignant* (*typhus gravior*). This will be immediately followed by a consideration of the complications to which they are respectively liable.

2. *Periodical fevers*, including *intermittents* and *remittents*, with their varieties.

3. *Specific fevers*, the exanthemata or eruptive fevers of authors; with which, I think, *hydrophobia* may be properly classed.

FOREIGN DEPARTMENT.

PATHOLOGICAL ANATOMY.

Absence of the Abdominal Muscles. By Dr. Bourgouin Duffaux.*

Madame J. R., ætat. 36, mother of three well-formed children, was brought to bed of a child arrived at the full time, rather small, thin, weak, and plaintive, having the umbilical chord dilated to three inches in thickness.

The abdominal muscles on both sides were wanting, the stomach and bowels being only contained within a thin, dry, serous membrane, interspersed with numerous yellow, fatty filaments, extending from the internal part of the ring along the umbilical chord, so that the chord passed through the middle of this membrane; it was infiltrated, enlarged, irregular, and open at its insertion in the umbilicus, as it usually is when nature has been engaged several days in the expulsion of the fœtus. The membrane is, I believe, only an extension of the seromembranous lining which covers the intestines. There was a hernia in the linea alba, and water by infiltration in the scrotum.

In the absence of proper cerate I applied some oiled linen on this membrane, which was so dry that it appeared as if it would break on the slightest friction. Three slips of diachylum were applied over this in order to assist nature in the obliteration of this ring. The child cried and *vomited* constantly, not only after taking food, but also, as it is termed, with an empty stomach. The vomiting was attributed to the bandages; these were removed, but the vomiting continued. On the 12th of May 1825, the child, being then eighteen months old, was in the following state:—The height and size are those of a child of its age; it is gay, lively, and well. Across the covering of the abdomen is to be observed a circular trace of muscles, but the muscles are not yet developed.

This case leads us to think, that vomiting may sometimes occur without the abdominal muscles participating in it; a long and hard disputed point, as will appear from the following summary of the experiments made respecting it:—

* Gazette de Santé, Dec. 5, 1826.

PHYSIOLOGY.

*Experiments on Vomiting.**

At the close of the 17th, and in the beginning of the 18th century, the opinion that the stomach was, in vomiting, entirely or almost inactive, appears to have been the most prevailing. Boyle, Chirac, Duverney, Senac, and others, have declared in favour of such an opinion. Through some observations of the old physiologists, and from some experiments which he himself performed, Haller was satisfied that the contraction of the stomach co-operated in the phenomenon of vomiting, but this he expressly placed subordinate to the actions of the abdominal muscles and diaphragm. This difference of opinion has occasioned, recently, many spirited discussions, which indeed cannot as yet be regarded as finished, but which appear to support the views of the ancients.

Magendie† commenced the modern contention by reading to the Institute, in the year 1812, a paper on vomiting; and those persons who formed the committee appointed on the occasion, among whom were Humboldt, Pinel, Cuvier, and Percy, declared themselves satisfied with the experiments which Magendie had performed. The most important results of the numerous experiments which he made on dogs, to whom he administered emetic substances, either by injecting them into the veins or by the mouth, are the following:—He never remarked any peculiar contraction of the stomach. He drew the stomach out of the abdominal cavity, so that it might be removed from the action of the abdominal muscles and diaphragm, and no vomiting was produced, although the inclination to do so was very perceptible; but as soon as he replaced the stomach in its natural situation, vomiting immediately followed. Pressure made with the hand on the stomach, whilst removed from the abdomen, acted just the same as the abdominal muscles, and produced vomiting. He cut through the abdominal muscles, but the pressure of the diaphragm on the stomach, aided by the resistance of the linea alba, was sufficient to make the animal vomit; when the diaphragm was also divided, vomiting ceased. The simple division of the phrenic nerve did not prevent vomiting from taking place. He substituted for the

* Lund's Vivisectionen der neueren Zeit.

† Magendie, Memoire sur le Vomissement, suivi d'un rapport par MM. Cuvier, de Humboldt, Pinel, et Percy. Paris, 1813. 8vo.

stomach which he cut away, a pig's bladder distended with fluid; vomiting was produced as if the fluid had been ejected from the natural stomach under the conditions before mentioned. He remarked that, during these attempts made to vomit, the stomach became distended with air. This observation was afterwards read more in detail to the Institute,* upon which Hallé and Pinel made a report. In this paper he showed that each time the air got into the stomach, it was attended with a motion similar to that observed in ordinary deglutition, in which the larynx was drawn first upwards and forwards, and again downwards. This distention of the stomach with air favoured the pressure of the abdominal muscles on it.

Scarcely had Magendie's paper on vomiting appeared, before numerous opponents presented themselves, and among the foremost of these was M. G. H. Marquais,† who, in an unimportant paper, extended his observations over seventeen pages of octavo, with a great show of superficial learning, without at all combating the facts forming the subjects of Magendie's Memoir.—Moreover, he charged the committee with having shown toward Magendie a decided partiality, and went even so far as to say, that the memoir and report might have been produced by the same author. Of somewhat more importance appeared the opponent pamphlet of Dr. Maingault.‡ Dr. M. had been, from his youth, Magendie's rival, and he collected together a good many facts which appeared to him inexplicable according to Magendie's doctrines; he performed some experiments, from which he made it appear that the results were quite opposite to those stated by Magendie. He removed the abdominal muscles, and cut through the phrenic nerves, and united the two operations; he even cut away all the abdominal muscles and the entire diaphragm, and in all these cases vomiting followed. The contradiction thus given to the very extreme of the results professed by Magendie, induced the Societé de Medicine, before which the paper of Dr. Maingault's was read, to nominate a committee for the examination of the subject, of which committee Legallois and Beclard were members. The committee could not satisfy themselves of the force of Dr. Maingault's experiments, and declared them quite inadequate to the refutation of the conclusions which Magendie had drawn from his. The consequence of this is already known; Maingault imagined himself insulted, and published his own paper before the report was delivered; the committee was therefore saved the trouble, but was induced by this circumstance to institute some experiments for themselves.

The results obtained by the committee from experiments which they performed, are the following*:—Without some external pressure, independent of that of the stomach, no vomiting takes place; but this pressure may, particularly according to the condition of the consistence of the mass, decrease and change its power in a great degree; fluids, for example, may be forced into the œsophagus from the stomach, even where the abdominal muscles are cut through and the action of the diaphragm destroyed, simply by the pressure of the last ribs towards the epigastric region, or, more correctly, the left hypochondriac. In the stomach itself they discovered that inside the circular contraction in the pyloric portion which was quite independent of any attempt to vomit, they could perceive no motion of the stomach connected with the act of vomiting.

The consequence of this decisive preponderance thus thrown on Magendie's side was, that the whole affair was admitted as an established fact, and there it rested for some time, until, indeed, the veteran of medical science in France, Portal,† raised his voice against such a general assent. In the year 1817, he read an essay to the Institute, in which he endeavoured to defend the opinion of Haller, and called to his aid partly the experiments of Maingault and in part some which he had himself performed in 1771, in which he had observed that dogs vomited, and that the stomach contracted if the recti muscles of the abdomen and the aponeurosis of the oblique were cut through. As one of the circumstances proving the co-operation of the diaphragm, he remarked, that it was impossible to force the contents of the stomach into the œsophagus when the diaphragm descended.—Magendie‡ did not leave this objection unanswered. He declared the experiments of

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* Memoire sur la Deglutition de l'Air.—Leroux's Journal, tom. xxxvi. p. 9, et seq.

† Marquais Reponse au Memoire de M. Magendie sur le Vomissement.—Paris, 1813.

‡ Memoire sur le Vomissement. Paris, 1813.

* Legallois et Beclard Bulletin de la Faculté et de la Societé de Medicine, 1813. No. X. p. 481—500.

† Since printed in the fourth vol. of his Memoires sur la nature et le traitement de plusieurs maladies, &c.—Paris, 1819.

‡ Nouv. Bulletin de la Societé Philom. 1817.

Maingault refuted; the first of Portal's observations loses all objection, because the influence of the abdominal muscles is not entirely removed; to the second he ventured to oppose his own observations, negative certainly, but founded upon more than two hundred experiments; and of the inaccuracy of the third he offered to convince him as often as he should wish.

The opinions of Portal appear to have given way to the convincing evidence of Magendie's experiments; and the question remained at rest until Bourdon renewed the discussion in the following year, by reading to the Societé de la Faculté de Medicine an essay, in which he produced the history of many cases of scirrhus ventriculi, in which the patients were not able to vomit, to show the active co-operation of the stomach itself in the production of vomiting: he endeavoured to find in some of Magendie's experiments a support for his opinion. In the experiments which he made of substituting a small bladder for the stomach according to the manner followed by Magendie, he found that this bladder could only be emptied of two-thirds of its contents. Bourdon drew therefore the following conclusion, that the remaining third part of the fluid in the bladder was the consequence of the absence of the contractive power possessed by the stomach; that is to say, that the emptying of the stomach is effected two-thirds by the action of the abdominal muscles and diaphragm, and one-third by the contractive power of the stomach itself. These observations obtained some attention, and led to the appointment of Beclard and Merat as commissioners for the further examination of the subject, who announced themselves favourable to the hypothesis of Bourdon. The force of this opposition of opinion did not continue long, and the author of it having been attacked by both of the other parties with theoretical and empirical weapons, was soon beaten quite out of the field.

Rostan* took upon himself to criticise the paper of Bourdon; and, in a review which he published of it, he makes the following observations: In the schirrus ventriculi, the coats of the stomach are thickened; and, in the cases recorded by Bourdon, they were four times thicker than usual, a circumstance which must prevent the full force of the abdominal muscles on that organ. That, in the experiment with the bladder, the tying of the pylorus, and the distention of the stomach with a fluid, were not conditions calculated to ensure the complete emptying of the stomach, he demonstrated in the following manner: 1. The putting a ligature on the pylorus is, perhaps, the very reason that something remained behind; because, it is possible that during the act of vomiting, some part of the contents of the stomach may be forced through the pylorus. 2. The distention of the bladder was a circumstance by no means necessary for the experiment; and, therefore, the importance of this pretended advantage falls to the ground. 3. That the contents of the stomach should consist of fluid is necessary, since the matter to be rejected from the stomach has to pass through a narrow tube, a mode of reasoning far from being conclusive.

The objections taken to the views of Bourdon, by Piédagnel,† deserve more attention, as they appear to have been drawn from experiments and careful observation. He showed that it was not necessary to assign the partial retention of the fluid, to any want of contraction in the bladder substituted for the stomach, but that the true cause of such retention was the folding over of the bladder on the edges of the œsophagus, by which it was impossible that the fluid it contained should be forced out by vomiting. Instead of a pig's bladder, he substituted the colon of a dog, and secured it to the lower extremity of the œsophagus; he allowed the end of this artificial stomach to protrude from the abdomen through an opening made just above the pubes, where it was retained; the gut was completely emptied by the act of vomiting. The second objection of Bourdon,—namely, the incapacity of the thickened and scirrhus stomach being emptied of its contents, he as successfully combated, and by numerous cases which he collected with Gondret,‡ proved quite the contrary.

Experiments on the Effects of Compression, and the Ligature on Poisoned Wounds.

M. Bouillard read a paper in continuation of one lately presented to the Academy, (*Vide Lancet, No.* 166. *Vol. XI.*,) on the effects of compression, and the ligature, on poisoned wounds. In his first paper, M. Bouillard had advanced that a ligature or compression applied to a poisoned wound,

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* Nouv. Journal de Medicine par Beclard. t. iv. p. 262.

† Magendie's Journal de Physiologie, t. i. No. . p. 251.

‡ Journal de Physiologie, loco cit.

prevented the effects of the poison from manifesting themselves, and that because the ligature or the compression prevented the venous circulation. It had been objected, that the successful result of these means might be attributed to the paralysis of the nerves of the part, and, consequently, to the cessation of all sympathetic irradiation of the nerves, irritated by the poison on the brain. It was for the purpose of dissipating these doubts, that M. Bouillard undertook some fresh experiments: 1. A grain of strychnine was introduced into a wound made in the thigh of a rabbit. At the end of ten minutes convulsions came on, which ceased on the application of a ligature; every time that the ligature was removed the convulsions returned, and that it was applied they disappeared. At last, after twelve hours, the strychnine was removed from the wound, the wound was carefully washed, and the animal remained quite well. M. Bouillard asserts, that a very small quantity of strychnine is sufficient to kill a rabbit, and that its action is strong in proportion to the smallness of the dose; and, lastly, that its action is slower when a ligature has been previously applied.

2. In the second experiment, the ligature was kept applied so long, as almost to produce a state of gangrene; and, in this case, if the ligature be removed, and the poison remains in the wound, no symptom of poisoning occurs. The non-occurrence of the effects of the poison must not be attributed to any change of the strychnine in the wound, for a portion of the very same strychnine inserted into a wound made in another rabbit, caused the death of the animal.

3. In order to prove that it is by the circulation, and not by an irradiation of the nerves of the part in which the poison is deposited that the poison acts, M. Bouillard repeats the experiment on a rabbit, the crural nerve of which he had divided; and the effects of the poison manifested themselves, but were immediately suspended on the application of a ligature. In another rabbit, M. Bouillard laid bare the crural nerve, separated it from the surrounding parts, and put some of the strychnine on the nerve, but the poisoning did not occur; but on trying the same experiment with the femoral vein, convulsions came on.

From these facts, M. Bouillard concludes that the ligature and compression only act on poisoned wounds by the suspension of the venous circulation, and by the poison being thus prevented from being carried to the centre of the nervous power.

PATHOLOGY.

Submersion.

*Royal Academy of Medicine, Paris.—Sitting of the 26th of September.**—M. Bourgeois de Saint Denis, read an account of a case of asphyxia by submersion. This physician, in the month of July last, going over one of the bridges, (Pont des Arts,) observed some persons carrying a man just taken out of the water to the bureau, where aid is afforded to the drowned; those who carried the drowned person, kept his feet high and head low, and were inflicting hard blows over the chest, loins, and posteriors, with the palms of their hands. M. Bourgeois proceeded instantly to the bureau, directed the person to be placed in the horizontal posture, and began to administer assistance himself, although the man did not show any signs of life, and had been under water for the space of twenty minutes. The means used to recall life, consisted in dry frictions of the whole body, moderated inflation of air into the mouth and lungs, tickling of the sole of the foot, hypochondria, excitement of the nostrils by the smell of liquid ammonia, injections up the rectum of warm water, with some salt in it, and then into one of the veins of the left arm. The vein, on being opened, did not at first furnish any blood. Every effort appeared for a while fruitless; when, after the lapse of an hour, the flow of blood from the opened vein showed that the circulation began to re-establish itself. A ligature was immediately placed on the arm, and, in a few minutes, ten ounces of blood were obtained. From that time the circulation and respiration returned, the chest evidently showing that their latter function was restored. But just at the moment when the symptoms of asphyxia were disappearing, and restoration to life becoming more and more evident, an attack of the most horrible convulsions and tetanus threatened the destruction of the individual. Sixteen ounces of blood were immediately drawn, and notwithstanding every effort to arrest the flow of blood, it continued to run until this convulsive state was followed by one of syncope, and afterwards profound coma, which lasted for twelve hours. The person was taken to the Charité, and with one bleeding more was perfectly restored. On the following day the patient was quite well.

M. Bourgeois presented this fact as a fresh instance of the efficacy of the trial of means after submersion of a considerable time, and when the drowned person was apparently beyond the possibility of recovery. From this fact, M. Bourgeois concludes,

* Archives Generales, Nov. 1826.

that hopes of restoration should not be abandoned until the decomposition of the body has commenced. Among the best restorative means, he considers the cautious inflation of air into the lungs, and the abstraction of blood, the air being breathed by the mouth of some person into the lungs. M. Bourgeois considers the warm air particularly suited to the lungs under that state, and that its warmth compensates for its impurity.*

Inflation of Air into the Lungs.—Asphyxia.

M. Leroy d'Etoiles, of Paris, has lately been trying some experiments to show, that although inflation of air into the lungs after submersion is one of the best means of restoring life, still that if it be not managed with great caution, restoration of life may be prevented by the very means used. Air was blown with considerable force into the lungs of some animals through a canula, inserted into an opening made in the trachea, and after one strong inflation only, the chest and abdomen became distended, as if the animal had made a deep inspiration. Among seven sheep on which the experiment was tried, four died in three minutes, and three in fifteen minutes afterwards. The third mode in which these animals perish, is by asphyxia. The phenomena which accompany the death of the animals, into the lungs of which air has been inflated, are exactly the same as those observed in complete obstruction of the trachea. In both cases there is always a great agitation, restlessness, sometimes convulsive movements, always violent and ineffectual efforts at respiration, and at last, cessation of all motion and of the circulation, after the lapse from three to five minutes. If the carotid artery of an animal, of which the trachea has been closed, is exposed, as was done by Bichat, the blood will be seen gradually to lose its colour, and diminish in quantity; it being necessary for the venous blood to traverse the lungs in order to become arterial, and this in asphyxia being prevented by the state of the lungs. The lungs of the animals presented appearances similar to those observed after inflammation, but the first effects superinduced by the powerful inflation of the air are not satisfactorily explained.

* We recollect, that a few years ago, Dr. D. D. Davis of this town recommended the same therapeutic agent (the breath from the mouth direct) for the same purpose, and that he proposed it to the Humane Society as a means which ought not to be neglected. The above case confirms Dr. Davis's views. —Ed. L.

EDINBURGH JOURNAL OF MEDICAL SCIENCE.

Jan. 1827.

"He's a very clever man, I'm told?" "Oh! very clever—he writes in the journals." "On what subjects, did you hear?" "His last article was on the distinction of the symptoms of enteritis from those of peritonitis." "Bless me! he must be extremely clever; you're acquainted with him?" "Quite well; he showed me the editor's letter, complimenting him on the difference which he pointed out between the pathognomonic signs of the two diseases." "That's flattering indeed—in which of the journals does he publish?" "In the Edinburgh Journal of Medical Science, lately established by some of the most eminent men in the capitol." "It must be a very interesting work; who are the principal contributors?" "Tip-top men in their respective line—lecturers, professors, practitioners of eminence in the city and the country; each department of the work being conducted by characters either engaged in the actual practice, or in the teaching, of their profession." "An excellent plan, that—novelty in the 'original communications,' wit in the 'reviews,' and judicious selection in the 'medical intelligence,' I suppose?" "All united, and forming one of the most splendid publications of the kind ever laid before the public." "It must put down all the other medical magazines—will it?" "O! dear, yes; Duncan's has already lost half its subscribers, Johnson's Review is scarcely heard of in Edinburgh, and Macleod's never seen." "Have you got the last Number, eh? Suppose we were to look over it together?" "No objection; here it is, a presentation copy from the editors, in consequence of some contributions of my own, for I dabble in that way now and then." "Good—proceed." "The first article is by Charles Hastings, of the Worcester Infirmary, and forms a valuable addition to morbid anatomy. He has discovered a 'peculiarly soft state of the lungs' in different conditions of the constitution, as in fever, decay of the powers of life, slow emaciation, &c., and totally distinct from the phenomena described by any other writer. Thus it is not referrible to the 'soft pulpy tubercle' of Bailie; to the 'scirrhous, hematoid,' or 'melanoid tubercle,' or to the 'pulmonary apoplexy;' or to the *melanessement rouge*, or *melanessement gris* of Andral, from the latter of which, it may be distinguished by the absence of pus on dissection, and from no part of the lung being found in a healthy state. He has given six cases, and as many *post-mortem* examinations in support of this

opinion; but as they are somewhat long, I shall just point out to your notice the points on which his discovery rests. In the second case 'only two or three points of purulent matter were detected;' in the third case, 'his patient coughed very much, and expectorated a thick yellow matter, which seemed tinged with bile;' and on opening the chest, 'the cells of the lungs were filled with a thick matter of the consistence of pus, but nearly of the colour of chocolate.' In the fifth case, a young lady 'coughed up about two tea-spoonfuls of dark-coloured blood, accompanied by a small quantity of pus-like matter,' and she had besides 'an expectoration of an ill-looking purulent matter in small quantity;' and in his sixth case, the appearance of the patient's expectoration was 'decidedly purulent;' but you will observe, that in not one of these cases could pus be found after death, and only one portion of all these lungs was in 'nearly a healthy state,' and what is still more remarkable, there were no symptoms present to indicate the existence of this 'peculiarly soft state of the lungs.' 'These are really extraordinary cases; but, now don't you think it rather surprising that pus should not have been found where it was expectorated during life; that all these lungs should have been diseased, and a part of one of them nearly sound; that there should have been cough in some, pain in others, and an expectoration in all, and yet no symptoms to indicate the presence of such serious mischief; it puzzles me a little—do you think there could have been any mistake in the matter, eh?" "Oh! not at all; I have seen much more singular occurrences: the ways of Nature are quite mysterious, and you could'nt surely think of doubting the competency of Dr. Hastings to decide in such cases, or suspect his veracity." "That is not precisely what I mean—but the contradictions, plague on them; and might not the diversified states of hepatisation afford instances analogous to the 'soft peculiarity' of the Doctor?" "Well, well, you are inclined to be incredulous; but the ingenuity of the title, and the results of the operation recorded in the following article, must excite your astonishment: 'Case of Cynanche Laryngea, in which the operation of laryngotomy was performed after all signs of life had ceased, breathing restored, and the patient lived eighteen hours.'" "The title is perfect, either as a puff or a definition, leaving nothing else to be said on the subject, and the result would form an important item in the records of the Humane Society; does he add any thing besides?" "A few pages, in which he states that he found the man in the act of expiring, and greatly convulsed. He endeavoured to cut into the larynx, but from the convulsive movements of the whole body, and particularly of the muscles of the throat, he could not succeed. In a minute or two the pulsations of the heart ceased to be felt, and the extremities became cold and stiff. He now made an opening," &c. "And of course the wonder is complete; but then, do the extremities become cold and stiff so soon after death? and what was the operator doing during this time?" "The weather probably was cold; the other question is immaterial; but the next case, you will allow, is valuable, as much from the name of the writer, as on account of the matter: it is a voluminous paper of 'Observations on Aneurism of the Abdominal Aorta, accompanied by obliteration of that artery, by Professor Monro.' I shall merely state the particulars; the patient died of tubercular phthisis. He showed no symptoms of aneurism during life. Turning over the small intestines at the examination, a tumour about the size of an orange was found adherent to the second and third vertebræ. The expansion of the tumour was equal on all sides from the axis of the artery, the dilated coats of which resembled white leather steeped in water, and there was no lesion of the parts. Above the aneurism the artery was contracted, and above this contraction was placed a conical-shaped plug of a firm nature, with the smaller extremity undermost. This plug was of a deep red colour, and seemed to be composed of a solid mass of coagulable lymph, intermingled with the red globules of the blood. It was an inch and an eighth in length, and an inch in breadth at its base, which was fixed by thin layers of coagulable lymph to the sides of the vessel, and thus completely obstructed the current of the blood through the aorta. From its firm adhesions to the sides of the vessel, Dr. Monro believes that it was not formed *in articulo mortis*; but some time before death, and probably by an inflammatory action of the *vasa vasorum* of the aorta. From this obstruction of the artery, and the history of other cases, he infers the propriety of tying that vessel, and concludes by stating that the pathology and treatment of aneurism are now complete, owing to the experiments and observations of men in this country; don't you applaud the physiology, the practice, and the patriotism evinced in that splendid essay?" "Of the patriotism of the article, there cannot be the least doubt; of the possibility of tying the vessel, there can be as little; but of the utility of the proceeding, and of the truth of the hypothesis that the 'plug' was not formed *in articulo mortis*, I am not quite so certain, knowing the strange freaks which Nature sometimes plays in the formation of polypi, &c. in the hearts of dying men. It would have saved Dr. Monro a

deal of trouble, if he only guessed the other way:—but proceed." "'Observations on Dysmenorrhea, by William Campbell, lecturer on Midwifery, &c. Edinburgh.' This paper is agreeably discursive, and profoundly learned, there being scarcely a subject which the author has not discussed, or a writer whom he has not quoted. There are one or two passages which I wish to point out to your notice as highly creditable to Mr. Campbell's sense of propriety, and our national abhorrence of continental manners. 'In France, where the sex,' he says, '*surpasses, or, at least, equals, those of any other country in Europe in freedom of thought and action, and in affability of manners*, &c., they use, as a luxury, what, in his opinion, may lead to diseased menstruation. This is a small earthen vessel, like a flower-pot, filled with live cinders, which every lady has placed under the lower part of her under garments, and even causes her servant sometimes to bring to church for her. And while on this subject it may be mentioned, that they have borrowed from the ancients a precept, which in former times was resorted to as a remedy, but which, from its too frequent use in the present generation, especially in certain countries, may assuredly be considered as the cause of the evil. Some notion of the practice to which I allude, may be formed from the following passage in Eros, who says, '*Aut fiat alind pessarium in modum virgæ virilis*, &c.'" "It is a sad fact, but a wretched piece of blackguardism, as true of every country as of France, and, being common to the human race, should rather be pitied in silence than blazoned forth into a national taunt. In science and morality we are pretty much on a level with our neighbours, and if Mr. Campbell were only a little better acquainted with the luxuries of "high life" at home, he might have known that the chaffing dish is no stranger to the carriages of Britain, and the warming-pan not unfrequently the nocturnal companion of our sleeping beauties; and as he seems partial to classical quotations, he may possibly understand the application of 'Hic niger est, hunc tu *Romane* caveto,' to his prejudices. What next?" "A metaphysical article, entitled, 'Remarks on the Subjects of Life and Organisation,' by T. Clendenning,—pray observe the style, which is peculiarly impressive. 'The promotion of knowledge is more immediately and manifestly affected by two classes of artists. Of these, one consists of such as with zeal, perseverance, inventiveness, boldness, and sagacity for their arms, take the lead in the field of investigation. It is for them, with discriminating taste, and erudite touch, and microscopic eye, to examine every object. It is theirs to test and to analyse, to measure and to weigh. It is they that remove obstructions, surmount difficulties, discover unknown virtues, detect lurking mischief. The other class above alluded to, comprehends those who, matured in wisdom by years devoted to attentive observation, patient thought, and profound study of the records of experience, having gained deep insight into the ways and the affections of Nature, who have diligently watched her movements, and, undeceived by her involutions and disguises, have ascertained the direction of her retreat, and discovered the path to her recesses; it is for them to lay down the chart of science, to determine the boundaries of the known world, and from lofty eminences, taking extensive views of yet unexplored regions, to point out the inaccessible peak, ungrateful desert, impassible swamp, and open and fertile country'—what do you think of that?" "Highly, I presume, if I could only guess what it was all about; but it is really too sublime for my comprehension; are you near the reviews?" "Here they are; twelve, I believe, in number, beginning with a ten-page criticism on the eighth edition of Hamilton on Purgatives." "Well, you need not mind that; he might as well have sat down to review the Bible or the Book of Common Prayer, as a work that has passed through the press eight times;—state the next subject." "'Johnson on the Morbid Sensibility of the Stomach.'" "What does he say of it?" "Praises it most extravagantly—calls the writer his learned and eloquent contemporary, and among other things, thus fraternally consoles him on the state of his stomach:—'One other point, also, we find rather slightly passed over, not that it was to be found in books, but that we expected it to have occurred to a pathologist of the calibre of Johnson, who has himself been so long a martyr to those complaints; for the "disciplina literarum corpori inimica," as we learn from this valuable little volume, reckons Dr. Johnson amongst her victims as well as her votaries.'" "A valuable volume! composed by a pathologist! of the calibre of Johnson! and on the state of his own maw; that generator of foul air and and libels, of moral acidity, and literary fermentation—impossible! the reviewer was merely quizzing the medico-chirurgical hypocondriacnad." "What follows is a specimen from a notice of Dr. Morrison's Lectures on Mental Diseases, which must impress you with a very favourable idea of these reviewers' taste and talents. 'The care of the human mind belongs to the practitioner of medicine. It is the most noble branch of our office.' So says the acute and accurate Guabius; and it would be so indeed, if our success were at all equivalent to the grandeur of the effect to be pro-

duced, the restoration of the immortal part of our nature to the proper exercise of its functions; to those amazing attributes, by which, with the lightning's velocity, it doth glance from heaven to earth, from earth to heaven, and approaches by near gradations the celestial natures that minister to Deity. But, alas! it is here our nobility ends, &c." "Poor man! he must have been greatly affected, for it is really pathetic, though mad folk are really the happiest fellows in the world. Is there any thing about phrenology?" "Yes, a review of Jeffery, Combe, and Millingan, entitled Phrenologia Rediviva, and commencing in the following spirited style: 'We are not quite so bloody minded with respect to the phrenologist as some thoughtless persons might infer from our dislike to their tenets. We pity them. Victims of a hallucination, which, in some shape or other, is inseparable from human nature, we look on them as genuine objects of compassion, and throw them our half-pennyworth of commiseration as they intrude their insane visions upon our notice, with as much christian charity as we would to the ulcered and naked beggar who exposes himself for its elicitation in the streets.'" "Mere gasconade, and badly executed—they have yet to learn how to bestride, in Newmarket fashion, the Pegasus of Billingsgate. How do they attempt to overturn the doctrines of phrenology?" "By the doctrines of chance—a species of argument borrowed from the notes of Millingan's Translation of Magendie; thus there are about thirty three faculties; these faculties are common to the human race; all heads have fewer or more protuberances; in proportion as they are numerous, the chances of finding them correspond to mental devolopment will of course be increased; there are few heads, for example, with less than seven bumps, which often extend to the number of twenty one; a phrenologist, therefore, in a given case of this kind, could make no more than twelve wrong guesses, but as eminences are exceedingly common things, like the faculties which they represent, a highly developed faculty has a chance of being accompanied by an indication, which chance is in proportion to the frequency of the eminence. The whole is ingeniously reduced to an arithmetical form. And the writer concludes, 'that the cases in which the phrenologist does succeed, or foretels the coexistence of the sign and its faculty in the same person, are the results of chance, merely.'" "Nonsense! There never was, perhaps, a more ingenious line of argument adopted to support, than that which they have selected to refute, the tenets of the phrenologists; for did not these sagacious critics perceive, that just in proportion as they overturned, as they supposed, the doctrine of phrenology, by *increasing the chances of the coexistence of the sign and its faculty, that* they were in fact admitting, nay, proving the truth of the proposition of the phrenologist, namely, the general accordance between physical and mental development? In all probability phrenology will come to no good end; but the reviewers have been somewhat unfortunate so far in their attempts to cut short the term of its existence. Any thing else?" "Various other reviews; a collection of facts *undique collatis*; and a battle royal with Roderick Macleod." "About what?" "It appears that in a former number they inserted two cases from the 'Yellow Journal,' (which, by the way, is a very ugly nickname,) and immediately letters of remonstrance and apology were exchanged between the parties; but not satisfied, Macleod absolutely advertises the omission of the name of his Journal as a theft, a plagiarism, in the Chronicle,—and hence the contention." "Nothing can better show the narrow-minded, avaricious jealousies of such creatures than their quarrelling among themselves about trifles; do they kill Macleod?" "No; they 'scotch the snake' merely; pretend to be merry at his expense; but it is evidently a grin, not a laugh." "That's a pity; from what journals do they select their intelligence; any articles from 'The Lancet?'" "Some; the excellent letter from Leyden, for one; evincing in this respect a liberality unknown to their contemporaries." "Do you think they will insert any of the communications of 'Scotus?'" "No, no; their liberality may not carry them quite so far." "But what is your opinion of the New Edinburgh Journal, on the whole?" "It possesses more honesty, and less stupidity, than Johnson's and Duncan's; is in every respect superior to Macleod's; and with all its apparent defects, is the best of the large medical magazines."

SCOTUS.

To the Editor of THE LANCET.

SIR,—As it appears Parliament is to be petitioned to grant some law by means of which students may readily be supplied with subjects for anatomical investigation; I beg permission to submit the following proposition, which will no doubt meet with the general approbation of the public: viz. That as medical men owe their support to the *dissection* of their fellow creatures, that they should in return of *just* recompense be delivered into the hands of their brethren, (anatomists) for the further promotion of science. St. Paul says, "As a man lives, so shall he die." I am, Sir, yours, &c.

A. B

THE LANCET.*

London, Saturday, January 27, 1827.

THE following is an extract from a letter that we have just received from our Winchester correspondent:—

"I beg to inform you that the MEETING of the MEMBERS of the COLLEGE of SURGEONS residing in HAMPSHIRE, held at Winchester on Thursday last, was both numerously and respectably attended. It was resolved UNANIMOUSLY *to support the prayer of the* LONDON PETITION, and a Committee was appointed to condense the resolutions agreed on at the Meeting. A subscription was commenced, and when complete will be forwarded to London for the use of the Treasurer, W. LAWRENCE, Esq. Each member, at the Meeting, expressed individually his decided belief that any measure short of a NEW CHARTER, would be quite ineffectual towards removing the existing abuses. Our Petition is to be presented by the COUNTY MEMBERS."

A knowledge of these facts must prove much more satisfactory to the friends of Surgical Reform, than any comments we could offer on the subject. We beg, however, to express our hope that the noble example of the Hampshire Surgeons will be speedily imitated in the other counties.

Whilst on the affairs of the College, we take this opportunity of stating, that many gentlemen bitterly complain of the London Petition being left only at ONE PLACE for signature. This matter demands the immediate attention of the Committee. Half a dozen copies, at least, ought to be distributed at convenient distances throughout the Metropolis.

DURING the past year, the medical public has lost some of its brightest ornaments. Barclay, Vacca Berlinghieri, Scarpa, and Laennec; and we have now to add to the and catalogue of mortality, the names of MASON GOOD, and CLINE. Mr. CLINE was a practical man, and, by his example, added at least to the respectability of surgery, though probably he did little more than tread in the trammels of his predecessors, and latterly lent himself to the abominable chicanery of the College. Though long and deservedly known to the literary world, Dr. Mason Good, until the publication of his Nosology, about ten years ago, was hardly known to physicians, and his medical reputation was not built up by degrees, but seemed rather to start into mature existence at once. The "Study of Medicine," the most comprehensive work of the kind that ever appeared in our language, whether we regard it as a work of labour or of genius, will glide down the current of time, and perpetuate his memory. Upon this work, we apprehend, his reputation must ultimately rest; for while his other labours, principally translations, may be looked upon as exercises, this could only be accomplished by much perseverance, industry, fatigue, and toil. He trod, perhaps, a little in the footsteps of Le Clerc and Freind, and mingling with the learned of past ages, was not always mindful of his contemporaries. But this was a venial fault, since he need not revive what had never been forgotten, or swell the volumes of his work with what was trite and common. Though Dr. Good was a Graduate of an English University, and aided the composition of the celebrated Oration of Sir Henry Halford, he was placed among the *permissi* of the College, having been at one period of his life a general practitioner. Dr. Good's literary labours induced frequent attacks of gout, and, ultimately, his death of a nephritic complaint, on the 2d of January, 1827, in the 63d year of his age. We have heard that his posthumous works will be edited by Dr. Olinthus Gregory, of Woolwich, who was associated with him in the compilation of a work called *Pantalogia*.

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* As we had not an opportunity of reading the proof of the article under this title in our last Number, several errata occurred, the most important of which was the substitution of the word *nothing*—for RATTING, at page 514, second column, twenty-fourth line from the top. As might be readily supposed, this error converts the entire paragragh into complete nonsense.

MR. BRACY CLARK'S STEREOPLEA.

[*Continued from page* 517.]

It has been shown that the principles which govern the construction of the horse's hoof, rightly understood, are capable of explaining the hitherto obscure causes of contraction and founder;—that is, are opposed to all that is rigid and fixed, as the common shoe, and agree with what in mechanics are known to subserve to motion. The natural motion of the hoof, under the weight of the animal, has been aptly compared by Mr. Bracy Clark, with that of the common bow for shooting arrows; or rather of those which are brought from the East; and "whose ends or extremities are inflected or turned inwards towards the centre." And it is perfectly clear

"- - - - - - that if a bow be firmly confined, at one or more points along its extremities, it will lose the power of motion, and will become more perfectly fixed as these points are placed at a greater distance from the centre; the nails passing through an inflexible iron ring into the hoof, in a similar manner, will make the hoof a fixed machine, attended with various degrees of restraint, depending on the size and form of the shoe, the direction which the nails have taken in their passage, as also their number and size; which being left to the discretion and judgment of the workman, or rather to his simple apprehension, unaware as he is of the structure and properties of the organ he is fettering, will be liable to much uncertainty and abuse."*

The motion of the foot, on receiving the weight of the animal, is common in a greater or less degree to all quadrupeds; the ass and mule, as they are destitute of the stature and noble proportions of the horse, so are they of the very exquisite organisation of its feet. The feet of these animals are more rigid, thickened and upright than those of the blood-horse, and suffer less from the common practice of shoeing, because they have less of elasticity to lose. In order to prove practically, what had been rationally shown, Mr. Clark took a succession of plaster casts from a foot shod in the common way, during a period of six years, and these compared with each other, afforded conclusive evidence of an annual diminution of the elastic mechanism and volume of the foot. To exhibit more clearly the progress of the evil, he made his observations annually, and assigned to each year its share of the mischief produced, until the foot had lost its elasticity, and could no longer serve its natural purpose.

A beautiful mare, turned of five years old, was the subject of these experiments. Five summers of growth, unrestrained, had given her a perfect hoof, of which, after several failures, Mr. Clark succeeded in taking a plaster impression, but which, wanting plates, we cannot more fully describe. On the 13th June 1805, exactly a year and nine days after the mare had been shod, another impression was taken, "when a diminution of volume throughout was strikingly manifest, but more so in the elastic parts." A mechanical hardness supplied the place of the easy and flowing outlines of the original, and as the author, speaking of his second plate, observes,

"- - - - such is the general diminution of the foot, that actual lameness would naturally be supposed the effect of so much alteration unless explained, for this does not take place for the following reasons: That the parts have suffered these alterations slowly; and from being in their nature yielding and elastic, have given way to the effect of the shoe, as far as the diminution extends at present, without much resistance; and above all, that during the application of the shoe, the parts that have most suffered, are not called into action, nor are their uses required, so that *the foot by degrees assumes a new sort of existence, and gradually adapts itself, as much as living parts can, to the effects of the iron circle,* AND CANNOT AFTERWARDS DO WITHOUT IT."

The slanting surfaces of the bars and frog had become nearly perpendicular; the

* A Series of Original Experiments on the Foot of the Living Horse. By Bracy Clark. 4to. 1809.

elastic parts of the heels, had lost their "swelling, round, and beautiful appearance, by the sinking of the cartilages and the loss of the elastic matter within;" the horny heels from one to another, in the original state of the part, measured somewhat more than four inches; in the second cast, scarcely three; the foot at the greatest swell of the quarters measured, at first, nearly five inches and a half; after being shod a year, only four inches and seven-eighths. The foot was not materially shortened, the shoe operating principally on its sides. The frog had lost the swell, or projection, termed by the author (see our last Number) the cushion of the frog, which had been wasted and cut away by the smiths. The texture of the frog had become hard and unyielding to the impressions of the finger, and its sides, as we observed above, had become almost perpendicular. The *cleft* at the base of the frog was partly closed, and formed a rounded hole much deeper than the cleft of the natural foot. The base of the frog had lost rather more than a fifth of its width. The sole was somewhat more arched, or cupped, than formerly, but how much it had gained of thickness, or how much lost of elasticity, could not be accurately ascertained. The following is the author's description of the foot, after another year's operation of the shoe:—

"The increasing rigidity and stiffness of the hoof is more strongly manifested; the quarters are more straitened, and a further reduction of its bulk of near half an inch has taken place. The cleft of the frog has become narrower and more lengthened; the foot has run out and increased at the toe, as though this part, from having no restraint, had increased at the expense, as it were, of the diminishing quarters and heels, being further in extent before the point of the frog."

At the end of the third year, the hoof appeared to have gained in size, which is thus accounted for:—

"... the possessor of the horse, somewhat alarmed, perhaps, for the first time, at the effect of the iron, and the change the foot had undergone, which had been fully explained and pointed out to him, was induced to take off the shoes, and turn the mare to grass without them, doubtless to prevent the full progress of the evil, and to remedy the present defect. The effect of it was, that a degree of fulness and plumpness was communicated to the frog and parts about it, which served to interrupt, for a while, the regular course of the experiment."

The following is the author's description of the mare's foot, at the end of four years:

"The compressed sides of the hoof, and the lengthened appearance of the toe and heels, have now brought the foot to a sort of parabolic figure, from being round and bulging laterally; the frog, from an elastic broad and nearly triangular form, is fast assuming the figure of a man's finger; its centre wasted by the thrush, and its sides collapsed from the pressure of the bars, as these have previously from the resistance of the iron to the expansion of the foot; so the foot now exposed without the shoe, would become as painful or more so, than if kept in the fixed state in which it is accustomed."

During the fifth year, which is the last that we need advert to, the foot was further deteriorated, and deprived of its form and qualities; the integuments, the elastic stuffing of the heels, the *reticulum*, the cartilages, and the frog, yielded in succession to the restraints of the iron,—of which, also, the bone began to feel the effects. We cannot stay with the author over the various diseases of the hoof, and degrees of lameness, which a knowledge of these circumstances may serve to illustrate or explain; enough has been done to show,—1st, that the foot of the horse is naturally elastic; 2dly, that this property, and the relative proportions of its parts, are alike lost under the common process of shoeing; and, 3dly, that such state of the hoof is incompatible with the healthy condition, natural motions, and perfect services of the animal. We proceed, in the next place, to a description of the "tablet expansion shoe," which is intended to protect the foot without diminishing the elasticity of its parts, and thus to prevent the contraction and other evils which the common shoe is,

with so much justice, accused of producing. The steel tablet expansion shoe, so called from the plate of steel which occupies its front part, and forms its most essential character, consists (Pl. 1. Fig. 1.) of three pieces, viz. one of steel, and two of iron; the latter nearly meeting on the upper surface of the steel, to which they are strongly fixed by two stout rivets:—

"The width, and also the thickness of this piece of steel, is considerable, so as amply to afford protection to the joint of the shoe, and allow an extensive bearing on the ground, and a defence to the whole line of wear; for the wear of the horse's hoof is confined chiefly to the toe, a little inclining to the outside, and not over the whole surface of it, as might be imagined, as any one examining an old worn-out shoe will readily perceive. This steel piece being hardened and lowered to the spring temper, confers upon it a durability unknown to any former shoe, and vastly surpassing, in this respect, the shoe in common use. The two pieces of the shoe fastened upon the steel plate by a single rivet, can both move in a lateral direction, and extend whenever the hoof pressed upon by the weight of the animal is disposed to dilate, and return again to the original state by the remission of the pressure. (See Plate 2. Fig. 1, *a a*.) The irons of these pieces are deeply stamped out in front to admit a place for the insertion of the steel toe-piece. These two halves of the shoe, though nearly approaching, do not touch; but there is a free space between admitting of motion, and one or both of them are made to move as may be thought desirable; one only, we believe, is sufficient to give the liberty which will preserve the foot from contraction.

"Whim and caprice have hitherto been too much the guide of the common smiths in the form of their shoes, some thinking one form best, some another; in the present system I have endeavoured to reduce it to a rule, and have taken the circle for the general basis or outline of my shoe, which, though it is not the figure of all, is by far of the greater number of feet; especially in the natural state, and before they have been injured by shoeing; I have also endeavoured, for the first time, to bring the other parts of the shoe into certain determinate portions of the circle.—(See the diagram for working by, Plate 1. Fig. 1.)

"The steel piece is made to occupy exactly a fifth part of the entire circle; and its width is a fourth part or quarter of the diameter of the same circle; which is sufficient to afford ample protection to the joint, and an extensive bearing on the ground, and also good room for the rivets. The thickness of this steel plate is two-thirds that of the iron of the shoe, and is made to project a very little below its inferior surface.—(See Plate 1. Fig. 2.) Again, the two extremities of the steel plate have their angle or obliquity determined by a ready law, viz. by simply drawing a line to the centre of the circle.—(See Plate 1. *b b*.) By conforming to these rules, the fitting of all parts of the shoe is rendered easy, even though the workmen be at a distance from each other, or in different countries; and the diameter of any foot being given, the relative proportion of all the parts of the shoe are immediately known; and for illustration I have taken as the most useful, a foot of exactly five inches in diameter, being a common size.* The outside rim or circumference of the shoe being a circle, the figure of the inside also is not left to chance or accident; but is a certain portion of one likewise; for the present, however, we defer giving this rule, as the heels of the shoe must first be determined which regulate it.

"To determine the place of the heel, and the angle of its truncation, we divide the diameter of the circle transversely into four equal parts, or spaces, *c, d, e, f*, and intersect them by a perpendicular line, *g*, through the centre; if from the last of these transverse lines where it meets the edge of the circle at *h*, we measure one third of the space between it and the vertical line, *g*, we get the place of the point of the heel, *i*, and the degree of obliquity of the truncation is determined by a line carried into the longitudinal line at *k*; and for the internal point of the heel, divide the last oblique line into four equal parts, and one of them gives the point, *l*, for the inside angle of the heel. By such rules a beautiful shoe is formed; but ugly as chaos will be that which is formed without order or method. I find by practice, that the shoe must often be made longer than this, in order to take a decided bearing on the strong point or column of the inflection or heels of the hoof, otherwise it may, after it has been on some time, sink it too much, and press upon the intertortional point of the sole or corn place; there is also another reason for its being larger, which is to allow of the shoe being bent or turned down at the heel, which appears to give evident advantage in his going, and as I apprehend, from it determining the weight towards the front and strongest parts of the hoof; a half, therefore, of this division, for feet that have been long shod with common shoes, will not be at all too much.

* In our pages necessarily reduced to a diameter of four inches.—*Ed.*

PLATE I, Fig. 1.

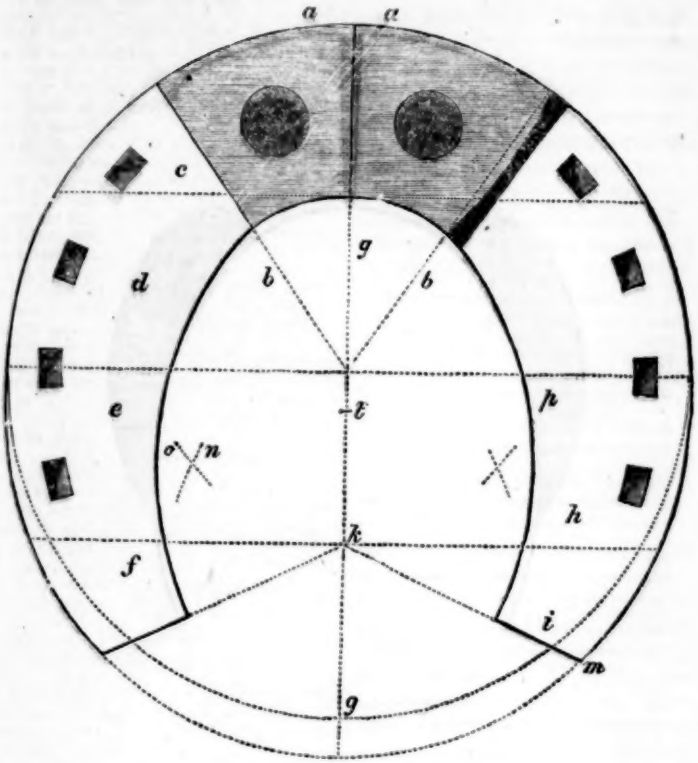

Fig. 2.

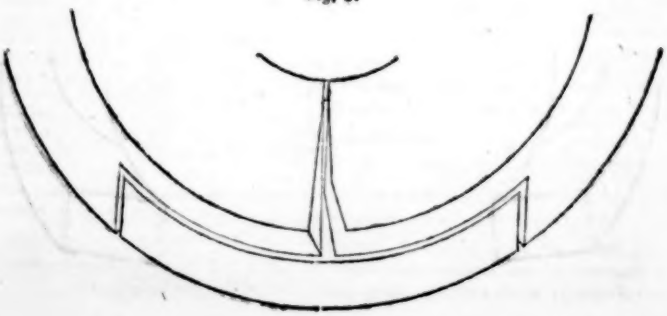

PLATE II. Fig. 1.

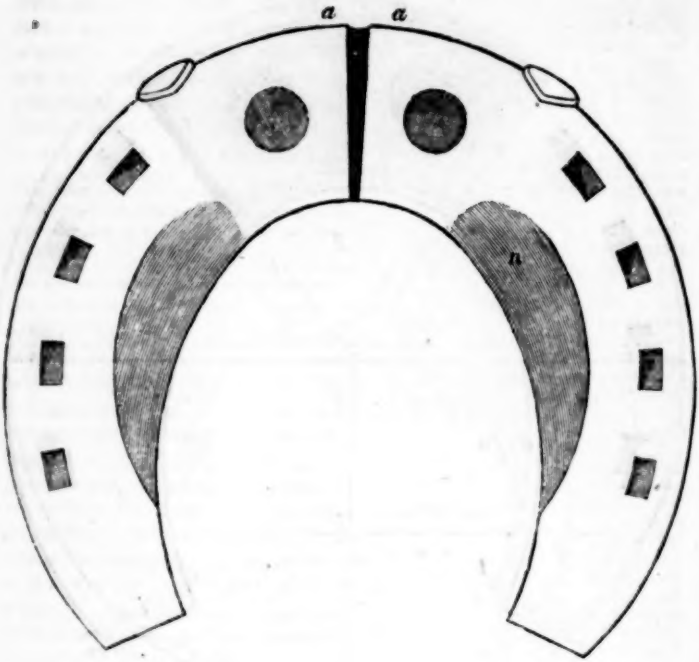

Fig. 2.

"Next, we may observe, that it is a practice universally followed, and not without utility, of making the shoe posteriorly wider than the hoof itself, in order to allow of a small degree of motion of the heels, and to increase the natural width of bearing of the foot. In this shoe this augmentation is ascertained by a certain law. For this purpose we measure the fourth part, or quarter, of one of the horizontal spaces, and by fixing one limb of the compasses as much below the original centre, and having the same radius as the original circle, describe an arc till it meets the former circle on each side, which gives the due increment of the shoe; and we then extend the place of the outer heel to this line at *m*. Being now prepared for forming the internal margin of the shoe, we place the compasses first at the point of the inner heel, and continuing the same radius, describe a short segment of a circle at *n*; and next placing the compasses at the inner angle of the steel plate, intersect it by another portion of a circle at *o*; and the compasses placed at the point of intersection of these two lines will describe the inner edge or margin of the shoe at *p*.

"The first nail-hole is brought as near to the steel-plate as it conveniently can without disturbing the joint, and the others observe a measured distance of eight-tenths of an inch from each other, which space sufficiently prevents the liability of breaking up the horn from one nail to the other; the last nail-hole is generally smaller than the others, on account of its being inserted in rather thinner horn. This shoe, when large, will bear five nails on a side, which I have thought more safe than four.

"The shoe itself (see plate 2. fig. 1.) is formed, as we have stated, of two parts or pieces, which nearly meet over the middle of the steel piece. One side only being intended for motion, terminates in a rounded edge, which appears to allow a sufficient extent of motion to preserve the foot from contraction; the other is made with a straight edge only. Any one desirous of more extensive motion may easily communicate it to both pieces, by rounding and preparing them for this purpose, or by leaving a wider notch or vacuity between them. Indeed if the joints are not very compactly put together, a sufficient motion upon the rivets will be obtained, without any particular or specific provision, as we find from practice." *

To make the expansion shoe accurately and well, the smith should first describe the diagram (pl. 1.) on an iron or brass plate, so that he may always have a certain model, and of course of various diameters, to work by. Any ordinary workman attending to these directions, may make the shoe with precision and ease; the expense will rarely exceed that of the common shoe; made at the "iron works, near Stourbridge," in large quantities, it will be less; but expense in matters of this kind, is not worth mention. After three months of actual practice with the above shoe, the author improved it by thinning the toe-piece backwards, by *fullering* the quarter pieces to receive the nails, by slightly turning down the heels, and by making five instead of four nail holes in each quarter, and finishing them with a pritchet, having a shoulder gaged to the head and shank of the nail. That this shoe, when properly applied, prevents contraction of the hoof, may scarcely be doubted, after the repeated testimonies of the author and others to that effect; but some cautions must be laid down here, since much mischief may be done by a hasty application of yielding shoes to *un*yielding feet. The hoof of the horse, though naturally elastic, and expanding under the weight of the animal, is soon deprived of these essential qualities, and becomes contracted, withered, and rigid, by the common process of shoeing. Designed for motion, but not suffered to move—checked too often in its growth, when all its beautiful structure was about to be unfolded, it is no wonder that the foot of the horse should, after a time, require the same iron ring of protection with the paviour's rammer, to which, in this state, it might well be compared.

They err who suppose that a natural foot requires the sort of protection which is generally given to it; since the author has proved, by riding a young mare from London to Bath, without shoes, that the suffering of the natural hoof is entirely in the

* A description of a new horse-shoe which expands to the foot. Invented by Bracy Clark, F. L. S., &c. with some account of its application and advantages. London, 1820. 4to. pp. 18. Sherwood & Co.

wearing line already described, and only caused by *attrition*. Any one who will look at a bullock in Smithfield suffering from a long journey, will perceive that the injury which causes lameness is not any breaking up or splitting, but simply a loss by attrition, of the horn of the feet. The "expansive shoe," then, can only injure feet which cannot yield to the weight of the animal, that is, contracted feet; for if an unshod horse may go to Bath without *tearing* his feet, *a fortiori*, and by experience, he can go at least as well with shoes which allow of the natural motions, which are adapted to the structure, and which prevent the wear of the foot.

But the exact degree of expansibility which the foot possesses should be ascertained, and the shoe nicely adapted to it. If the shoe possess more motion than the foot, it is clear that much mischief may be done to the walls of the hoof in striking the ground; but if it be a little less, the only thing to be feared is contraction, which of course will be much less than inevitably results from the unyielding common shoe. On this side, then, if the exact expansibility of the foot cannot be ascertained, is the greater safety. A foot long shod in the common way, must become contracted, having lost its natural motion, and requires support, instead of an expanding shoe, which, we again repeat, will in such cases be more often injurious than useful.

THE

MEDICO-CHIRURGICAL REVIEW.

Egotism, love of monopoly, and vain glory.

To the Editor of THE LANCET.

SIR,—In the quarterly hotch-potch, which goes under the above title, published this month, (January, 1827,) there are, at page 288, some remarks which appear to me strikingly characteristic of the intellectual endowments of the renowned editor of that far-famed performance. A deceased friend of mine, when speaking of any person whom he considered remarkable for confusion of intellect, was familiarly wont to say, "My dear fellow, he has got a great big potatoe in his head." Whether this be the true phrenological explication of the phenomena to which I shall have occasion to advert, I will not presume further, without *data*, to determine. One thing, however, is certain, that a man who professes to instruct others, should set out by endeavouring to acquire some distinct ideas of his own. The editor in question, having an admirable instinct at evading matters that are of real importance, and giving an adventitious importance to trifles, is pleased wholly to overlook the state of the medical profession as it injuriously affects the interests of the public, and fastens with avidity on the mighty quarrel between the fellows and the licentiates of the London College of Physicians, concerning the right of granting admission to the Hunterian Museum, as if the welfare of all his Majesty's liege subjects actually depended upon the issue of this frivolous dispute. This inevitably reminds one of the comedy of "Much ado about Nothing," or the "*parturient montes, nascitur ridiculus mus.*" And, in expressing myself thus contemptuously, I hardly think it can be necessary to inform even a poor blind medical reviewer, who walks systematically in the rules of the schools, and is licensed to deal in all sorts of inconsistencies, that this disparagement has reference entirely to the nature of the contest, and not in any degree to the Hunterian Museum, which I hold in due respect.

Having formally laid before his readers those important state documents,—the proclamation of Dr. Ager on the part of the fellows, and that of Dr. M'Leod on the part of the licentiates,—the facetious editor of the Medico-Chirurgical Review says, "it would *ill befit* us to interfere, or give any opinion on the question," &c., and immediately proceeds to interfere, and to give opinions most manfully. According to his ordinary habit of praising every one, *usque ad nauseam*, excepting those who most deserve to be praised, this good-natured critic acquits, before his merciful tribunal, all the performers in this Medico-Melo-Drama of all improper acts and intentions: he acquits the late censors, he acquits the treasury, he acquits the curators, he acquits every body, and decrees that what happened was "unavoidable" in this best of all possible medical worlds. Yet the prohibition, the "revival" of which he considered "unavoidable," this fatalist reviewer does not hesitate to designate a foul blot on the medical annals of England. "In respect to the observations which we made on this subject

in our last Number, we have but little to add. *We* distinctly stated, that "*we knew not how, where, or why this insidious prohibition started into existence*"—(what a sublime idea is that of a prohibition *starting into existence*! exhibiting a specimen of that spontaneous or self-generation, only to be met with in the schools;)—"but that *we* had no hesitation in designating it a foul blot on the medical annals of England." How an "unavoidable" circumstance can be "a foul blot," is not very obvious to ordinary understandings.

But, in lucidness, this is nothing to the modes of ratiocination which follow: "*We* said that the *marked degradation* which meets the eye of the licentiate, would be likely to transmute into open hostility what now exists in the shape of *smothered indignation*." "*We* ask Socius, if the document produced by Dr. Ager does not prove the degradation of the licentiate?" (Self-evident truths are not usually considered to require probation.) "The very government itself degrades him," &c. "If Socius will attempt to persuade the licentiates that they have no reason in the world to be discontented with their lot, he knows little of human nature." Yet this critic, in his great intimacy with human nature, almost in the same breath warmly repels the allegation of Socius, that he had imputed to the licentiates "unkind feelings" towards the fellows of the College! "Nature," to be sure, according to one of our most esteemed bards, "has made strange fellows in her time." But if the licentiates of our esteemed medical critic be so constituted, that "smothered indignation" may exist in their minds, that "marked degradation" may meet their eyes, that proof of their degradation is contained in censorial proclamations, that the very government itself joins in degrading them, and that they have every reason in the world to be discontented with their lot,—if all these things can happen, I say, without exciting in their minds any other than *kind* feelings towards the authors of their degradation, verily they are stranger fellows than even the self-created Fellows of the College, or any other that have hitherto come out of the hands of Nature, and must surely have been manufactured by some of Nature's clumsiest journeymen. It would be in vain to attempt to characterise that medico-critical philosophy, which repels the imputation of having alleged the existence of the *effect*, after having shown that its *cause* has been irresistibly operating!

The succeeding *dicta* of this Editor are still more curious, and, if their folly were not so easily exposed, might be mischievous: "This indignation," he says, "arises from the state of *degradation* (we repeat the word) in which the licentiate is placed by the anomaly of his situation, *without any reflection on the Fellows of the College*, WHO CANNOT ALTER THE EXISTING STATE OF THINGS!" Indeed! and what hinders them from being able to alter this state of things, which they have themselves created, but their notions of their particular interests, as distinct from those of the public and the profession at large? The wonder is, that, in a scrutinising age, like the present, any person, even if privileged to talk after royalty, in the plural number, should have the audacity to make assertions so very marvellous, without being able to show any grounds for them. It is, indeed, quite obvious that this editor is either ignorant, or affects ignorance, of the real situation of the College, to which he is so worthy an appendage. In either case, he is highly culpable, since the means of information which I have recently met with in this distant quarter, (and very ample they are,) are equally within his reach. Will he have the goodness to explain to us country gentlemen, by what other authority than their own illegal by-laws, the College have divided physicians into different ranks, stigmatising the licentiates in the manner which he has so feelingly described? Will he inform us by what authority they have limited the number of physicians, throwing the practice of physic into the hands, first of quacks, and afterwards of surgeons and apothecaries, and thus enhancing to the community in a dreadful ratio the expenses incidental to sickness! Will he be pleased to say by what authority they have assumed the privilege of examining graduates in physic, thus infringing the undoubted rights of all the Universities of the United Kingdom, whilst they have a direct personal interest in the issue? Now, if Dr. James Johnson can show that the College are bound by any law of the land, to maintain these privileges; or that they cannot alter every one of them without any violation of the law of the land, I will immediately join with him in acquitting the fellows of the College of all blame.

This Editor appears to think, that in respect to the organisation of the medical profession, there are no other interests to be consulted than those of the fellows and the licentiates; he seems wholly to forget that there is such a thing as a public in existence. Now as he is, in virtue of his functions, an instructor of youth, and a corrector of the mistakes of age, it may be useful that his own ignorance and errors should be freely exposed. It is quite obvious that, to the community, it would not signify a farthing whether the licentiates were all exalted into fellows, or the fellows all depressed into licentiates. The public would be precisely equally ill served. The change contemplated would not in any respect alter

the merits or the qualifications of the present race of graduates in physic. The number of physicians, upon the whole, would still not be within a sixth or a tenth part of their due proportion to the other branches of the profession; and they and their patients would still be in the hands of the apothecaries as heretofore. Men of sense, who understand the general bearings of the subject, care nothing about the squabbles of the fellows and licentiates, excepting to laugh at both. They know that, in order effectually to advance the interests of the community, and the respectability of the profession, it is indispensable that all its branches should be laid quite open, and that there should be no grace or favour shown to any of them. How different are the modes of viewing this matter, of persons who are accustomed to consider themselves only in the whole creation! A more perfect specimen of egotism, love of monopoly and vain glory, is, perhaps, rarely to be met with in the same compass, either *intra-limites*, or *extra-limites*, than is presented by the following editorial *morceaux*, on which I shall, by way of amusement, bestow a few words of comment: "We have, on several occasions, exhorted every father in the British dominions, who has a son destined to practise as physician in England, and especially in the metropolis, to give him his classical and *scientific* education at Oxford or Cambridge, and his *medical* education in London, Dublin, Edinburgh, or Paris, as he may think fit. By this plan, *his son will become a fellow of the College of Physicians*, and evade the degradation of the licentiate! What fortunate sons, to be so distinguished! What happy fathers, to have the glory of calling their sons fellows, at the trifling cost of three times as much for the education of their offspring, as it would cost to make them licentiates! What a lucky community, to have the pleasure of paying three times as much to their physicians for advice, because they are taught to read Hippocrates and Aretæus, and other obsolete works, in which nothing is to be found that is of any use at the present day; "Oh! Jamie Johnson, Jamie Johnson, oh!"

Whatever may be the case with respect to his son, our critic seems to be fully aware that, by the process above recommended, he has himself no chance of ever arriving at the fellowship. Accordingly, not to preclude the possibility of his becoming a member, instead of remaining an appendage of this pernicious monopoly, he sagaciously suggests a little supplementary plan: "But as the change, which may be effected thus in the proportion between fellows and licentiates, must be very slow, and can never entirely cure the invidious distinction which *now* exists, we think that an act of liberality on the part of the College, *which would be perfectly compatible with the safety and stability of its charter*, and *eminently calculated to disarm the medico-radicals*, while it *cemented the bond of union among all the more distinguished physicians of the kingdom*, is highly worthy of attention from the *present enlightened* President of the College! What a tissue of nonsense and impertinence is here! But it won't do, most learned Doctor. The measure recommended (which will never recommend you to the fellowship) would not be an act of liberality, but of gross folly, on the part of the College. The present President is, I believe, much too enlightened a man to be cajoled by flattery into sharing the College privileges with the licentiates, as such concessions, far from rendering their charter more safe and stable, would immediately shake it to its very foundations, since they would universally and truly be attributed to fear. Besides, if the fellows of the College "cannot alter the existing state of things," what right can the president have, according to this writer's own doctrines, to divide the privileges of the fellows with the licentiates? Nor is he silly enough to imagine that such a participation of usurped privileges would reconcile the public to a continuance of the usurpation. He has also, I am persuaded, a great deal too much good sense to believe that it is in the power of the College, by any measures which they could adopt, even with the aid of the "more distinguished" physicians of the metropolis, (*we*, and *our* friends,) to disarm those independent men, whom this writer honours with the appellation of the medico-radicals.

The medico-radicals, satisfied with the justness of their views and endeavours, and secure in the support of the public, with whom they are engaged in a common cause, regard with equal indifference the arrogance of the fellows, and the degradation of the licentiates; and as to their quarrels about the division of the spoils, they make one think of Peachum and Locket in the Beggar's Opera: "Brother, brother, we are *both* in the wrong." "*We* mean," proceeds Dr. James Johnson, "an annual admission of a certain number of physicians (of other universities than Oxford or Cambridge,) who may have acquired the esteem of the public, and the profession at large, by their probity, talents, learning, and medical science! Here is a beautiful system of favouritism contemplated. Who are to be the judges of these superior qualifications? This barefaced partisan of monopoly egregiously deludes himself, if he expects to persuade any man of common sense and experience, that any other merit would be attended to as a title to the fellowship, but that of zeal in upholding the exclusive privi-

leges of the College. "Such a prospect, or premium for *merit*, would prove an unceasing stimulus to the whole body of physicians, while the annual influx of talent into the fellowship would soon render it the most distinguished College in Europe." That is, in plain English, by opening such a wicket, all the licentiates would become greater adulators of the College, and more subservient to them than they are. And, as to talent, the more was its influx into the College, in its present state, the greater would be its capability of deluding the public with effect. But the period of delusion, most learned and sapient doctor! is past; and it is not in your little sophistry to revive it.

Our reviewer, in effect, seems to fancy himself past the wicket, which he has in imagination opened, and already a fellow. "No change, in *our* humble opinion, should be made in the *path* which *now leads* to the *right* of a fellowship; but the *grace* of admission should be liberal, and awarded *only* to merit." This writer seems entirely ignorant that there is no such thing as a right of fellowship, that the privilege exercised in this respect, is entirely usurped, and that therefore there can be no path which now leads to it. I would recommend to him, before he again meddles with the subject, which it is clear he either does not understant, or affects not to see in its true point of view, to consult a recent publication, entitled, "An Exposition of the State of the Medical Profession in the British Dominions; and of the Injurious Effects of the Monopoly, by Usurpation, of the Royal College of Physicians in London." It does not contain nearly as many *words* as *one* of his own quarterly numbers; but its *principles*, if carried into effect, would more essentially serve the public and the profession, than probably all the subject matter that has appeared in the whole of his numbers put together! With respect to the *grace* of admission being liberal, and awarded *only* to merit, the ideas are by far too abject and contemptible to merit even a comment.

In his last Number, the editor, I observe, recurs again and again to THE LANCET, and favours us with specimens of his *kind* feelings towards yourself, whom he means to punish, by hindering Dr. Elliotson from ever writing again in his own name in your pages! Dr. Elliotson has acted an honourable and manly part; and if, at the instigation of this would-be monopolist, he should be persuaded to recede from that path, the loss will be his own, not yours. His place will be more than supplied. But I do not auger so unfavourably of his understanding.

By the by, amongst some able letters, upon the subject of the constitution of the College of Physicians, which have recently appeared in THE LANCET, from "A Physician," "An Enemy to Injustice," *cum multis aliis*, I have, with pleasure, perused one, in Number 172, under the signature of "A Member of the Faculty of Physic," announcing also a circular of that body, but which I have not yet seen in your Journal. Will you have the goodness to inform me, in your notices to correspondents, where that document may be referred to, and through what channel the Faculty of Physic may be addressed.

A PROVINCIAL PHYSICIAN.

ROYAL INFIRMARY.

Surgical Operations, by Messrs. BALLINGAL *and* HUNTER.

THE interesting novelty of no less than half a dozen of operations within the last few days, has, in some measure, redeemed the monotonous repose of the scalpel during as many months in this establishment. Two of these cases were amputations, one of the arm, another of the leg. Nearly a similar cause, chronic disease of the elbow and ancle, terminating in erosion of the cartilages, and a collection of sero-purulent matter, rendered the removal of those joints necessary. Both operations were performed very flippantly in the flap-style by Dr. Ballingal, at the usual distances below the patella in one, and above the elbow in the other. They, of course, require no further comment, so far, than merely to observe, that, with a perverse anxiety to support the honour of the Institution, and a desperate fidelity to an exploded usage, the STITCHING was repeated in each of these instances, just as if Pilrae and Louis, and a hundred others beside, had never trimmed the midnight lamp to throw light on the pernicious effects of sutures. On one of those days, also, the excision of a carcinomatous ulcer from the lower and back part of the neck, afforded a third opportunity for the abuse of the needle; and no doubt, when the integuments were brought together by its agency, the wound looked vastly pretty and mechanical, and would have secured a verdict of approbation from any jury of glovers. But, in one short night, the beauty of the workmanship vanished, and those stitches, which only the day before had worn so promising an aspect of adhesion, were cut away on the very first dressing, having produced their usual consequences, an erysipelatous

blush around the points of insertion, and the probable prevention of union. To aspire to eminence by singularity in this manner, or to affect consistency by a perseverance in error, as was sufficiently obvious in the menacing movements of the operator on these occasions, is, perhaps, after all, but a humble virtue, as much within the attainment of the brute as of the human species, of the ass that kicks instinctively when goaded to go on right, as of lordly man, who vaunts himself on the possession of reason. Hydrocele formed the subject of the next two performances—one of them conducted by Dr. Ballingal, the other by his colleague, Dr. Hunter. The first was a case of double hydrocele, of a very large size, on the right side, comparatively less on the left, with an enlargement of the testicle, and thickening of the tunica vaginalis, as is common when the disease is of a long standing. Some doubts arising in consequence of these extraordinary phenomena, the scalpel alone, as a measure of precaution, was used instead of the trocar in opening the cyst, from which about two pints of coffee-coloured fluid were evacuated, the other side being reserved for a separate exhibition. In the second case, the production of the disease was attributed by the patient to an injury inflicted on the parts, and was tapped by Dr. Hunter. The injecting apparatus, threatening Sir James Earle, and a host of other authorities, with an immediate refutation of their principles, stood ready on the table, but the evacuation of the fluid disclosed here also an unsound state of the testicle, and the fallacy of prognosis, and of course deprived the operator of his anticipated triumph over common sense and experience. Bronchotomy, and the taking up of the humeral artery, had also their turns during this eventful week. The person on whom the former operation was performed, was affected with laryngitis, and had been for some time in the house under treatment for other diseases. On the 8th, soreness of throat, pulse 104; 9th, tonsils and uvula much inflamed; 10th, breathing difficult, larynx painful externally to the touch; bled to 40 ounces, and tartar emetic ordered, so as to keep up constant nausea; 11th, pulse 120, lividity of countenance; leeches applied by mistake to the trachea, instead of the larynx; operation performed in the morning, and died in the afternoon. The subject of the other operation came into the hospital with a wound of the hand from the fall of a broken bottle on the part. The radial artery was taken up to stop the bleeding, but repeated hæmorrhage from the original wound, and compression of the ulnar artery being found to have no effect in stopping the blood, it became necessary to tie the brachial artery, which was executed by Dr. Ballingal in the short space of twenty minutes!—Retention of urine next claimed the attention of the house in the person of James Lees, aged 51, with a notice of whose case this brief review, *de omnibus rebus*, shall be concluded for the present. He was received into the hospital between eleven and twelve o'clock in the forenoon of Jan. 9. A country surgeon had exhausted all his ingenuity in attempting to draw off the urine, but in vain. On admission, he was affected with partial retention, alleged to have been brought on in consequence of a fall on his back a few days before, and the previous existence of disease of the urethra. The catheter, enemata, and warm bath, having failed, he was bled to twenty ounces, and anodyne enemata and fomentations administered, from which he experienced some relief, and passed about one ounce of bloody urine, partly purulent. At four in the afternoon, the blood appeared highly buffed; his pulse rose to 120; the enema returned in half an hour after exhibition, but has passed no urine. At eight o'clock on the same evening, the symptoms continuing unaltered, with a purulent discharge from the urethra, and having passed a small quantity of fetid urine, the bladder was punctured through the rectum, the canula left in the opening; an anodyne draught ordered, and castor oil in the morning. 10th, Slept at intervals during the night; pulse 112; skin hot; passed some urine through the canula; eighteen leeches ordered to be applied to the pubes and perineum. 11th, No sleep during the night; some urine passed through the canula; pulse 120; pain in the hypogastric region and perineum; fomentations, a purgative enema, and eighteen leeches ordered. 12th. Slept a little during the night after the warm bath; pulse 100; intense pain in the pubic region; canula had been withdrawn yesterday evening. 13th. Scarcely any sleep; passed some urine by stool; became delirious about morning; the stricture cut down on this day, and died the following night. *Requiescat in pace.* May divinity have done more for his soul, than surgery did for his body. There was no examination publicly after death; and we must only conclude, that the omission was perhaps judicious under such circumstances.

SCOTUS.

Edinburgh, Jan. 20, 1827.

HOSPITAL REPORTS.

GUY'S HOSPITAL.

OPERATIONS.

Removal of the Mamma.

On Tuesday, January 2, Mr. Morgan removed the breast of a female, in consequence of its being affected with cancerous disease. The patient was a healthy-looking woman, 39 years of age; the disease was of two years standing, and first made its appearance as a small hard lump in the substance of the mamma, that gradually enlarged. At the time of the operation the whole of the breast had become affected with scirrhous disease; there was a very hard, flattened tumour occupying the natural situation of the mammary gland, the nipple, which was retracted, forming the centre of the swelling. The skin immediately round the nipple was adherent to the tumour, which was irregular on its surface, and attached beneath to the pectoral muscle so strongly that it was but slightly moveable. The pain experienced was of a lancinating kind, but it was seldom felt, and by no means formed an important feature in the case; there was no distinct glandular enlargement in the axilla. The patient stated that she had never borne children, and that her menstruation during the last two years, although it had not entirely ceased, was very irregular both as regards time and quantity.

The operation consisted in making two oblique elliptical incisions through the integuments, which meeting at their points, included the diseased mass, and this was subsequently dissected out; the pectoral muscle being laid bare, and a portion of its fibres removed. Mr. Key, during the excision of the tumour, made pressure on the subclavian artery, with a view of restraining the excess of hæmorrhage anticipated from the division of the mammary arteries; it did not appear however to have much effect in restraining the flow of blood. Several arteries were secured, and the integuments were brought together in the usual manner.

The operation was performed in a manner highly creditable to Mr. Morgan.

Application of a Ligature to the Femoral Artery.

This operation was performed, a short time since, by Mr. Bransby Cooper, on a man labouring under popliteal aneurism. The particulars of the case are briefly as follow: the patient, 49 years of age, and of somewhat unhealthy appearance, had perceived a pulsatory swelling in the right hum only ten days previous to his admission into the Hospital. The leg had been swollen and œdematous for upwards of six weeks, and he had felt occasional pains in the limb when he walked to any considerable distance; still, up to the period at which he discovered the swelling, he had pursued his ordinary occupations as a carpenter. When admitted, there was a pulsatory tumour in the popliteal space of about the size of a hen's egg; the pulsation in the swelling was stayed by making pressure on the iliac or femoral artery, and quickly returned when the pressure was discontinued. The skin covering the tumour was slightly discoloured, as were also portions of the integuments of the leg; there was varicose enlargement of the veins, and the limb was œdematous.

The operation was performed two days after the man's admission. With respect to the *modus operandi*, we must observe that the incision through the integuments was made (*placed*, Mr. C. Bell has it) by far too much on the outer side of the limb—there was, consequently, some Travers-*ing*, in order to get at the artery.

A few hours after the operation there was bleeding from the wound, the blood which flowed being evidently arterial; the hæmorrhage however was restrained by the application of a compress, with pressure by the hand continued for a considerable length of time. Mr. Cooper was of opinion that the blood proceeded from a small branch of the femoral artery, given off immediately above the part at which the ligature was applied. We suppose that nearly a quart of blood was lost. From this time there was no recurrence of the hæmorrhage; the wound for many days manifested an indolent disposition, not having the least tendency to heal; to this succeeded profuse suppuration, and a consequent hectic state of system, which well nigh proved fatal to the patient.

At the date of making this report, (January 10,) he is fast improving in his general health, but the wound has not yet completely healed.

Application of a Ligature to the Radial Artery.

A few days since, Mr. Key applied a ligature round the radial artery at the wrist, in order to restrain the hæmorrhage from a deep penetrating wound between the finger and thumb. The bleeding had continued for two days, resisting pressure; and the depth of the wound precluded any attempt to take up the bleeding vessel; the operation was effectual. The ligature came away from the artery on the sixth day.

ST. THOMAS'S HOSPITAL.

CASE OF CHOREA, (PRECEDED BY HEMIPLEGIA,) CURED BY CARBONATE OF IRON.

Wm. Walters, an unhealthy looking boy, about twelve years of age, was admitted into the Hospital on the 28th of September, under the care of Dr. Elliotson.

The boy stated that he had been ill upwards of six weeks, being first attacked suddenly in the night with loss of power on the right side of the body; to this shortly succeeded universal chorea, and the affection was so severe that the muscular agitation continued even during sleep. In the absence of Dr. Elliotson, his colleague, Dr. Scott, directed a purging powder, composed of scammony and calomel, to be given every second morning; and at the same time leeches to be applied to the temples.

This plan of treatment was continued without producing any amelioration until 9th of October, when Dr. Elliotson prescribed

Two drachms of the carbonate of iron,

to be taken twice a day.

On the 13th of October, the report was, that the chorea was rather less. On the 24th, no further improvement had taken place, and the carbonate of iron was directed to be taken three times a day. On the 7th of November, finding that the disease did not yield, Dr. Elliotson directed the carbonate of iron to be exhibited every six hours. The report made on the 20th states, that the patient is much better; he is quiet during sleep, and can hold objects more firmly. On the 28th he was still improving, and on the 15th of December there was scarcely any disease remaining. On the 25th of December he was reported as quite well, and left the Hospital shortly after.

The improvement which took place in the boy's countenance and bulk, during the exhibition of the carbonate of iron, was very striking, and its effect in controlling the disease was no less remarkable. When the boy was admitted, he could scarcely walk or stand, and the agitation of the whole body was very great, continuing, as we before observed, even in sleep. During the time that the patient was taking the carbonate of iron, he took aperient medicine only three times. We had an opportunity of seeing the boy about three weeks after he left the Hospital; he was then living as servant in a family, and was in perfect health.

CASE OF ANEURISM OF THE ABDOMINAL AORTA, IN WHICH THE SAC WAS FOUND TO EXTEND FROM THE DIAPHRAGM DOWNWARDS, TO BELOW POUPART'S LIGAMENT.

The particulars of this interesting case are as follow:—The patient's name was John Davis, a labourer in the East India House, and about 33 years of age. He was admitted into George's Ward, under the care of Dr. Elliotson, on the 21st of December. At the time of admission, he stated that he had been ill seven weeks; he complained of a dull aching pain in the right hip and thigh, extending also to the knee. He said that he occasionally felt pain in the left hip. Dr. Elliotson, considering the disease to be of a rheumatic nature, directed the application of a blister to the right hip, and half a drachm of the wine of meadow saffron to be taken three times a day.

[The report made in Dr. Elliotson's book on the 26th, simply states, the patient has less pain.—Continue the medicine.]

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Dr. Elliotson considered that the nature of the disease was apparent enough—that it was aneurism of the abdominal aorta; he directed that the patient should be kept

quiet, and merely as a placebo, prescribed a dose of infusion of gentian to be taken three times a day. We may remark that the pulse at the wrist was 120, and feeble in its beat; the patient's countenance had an unhealthy aspect.

He remained from the 2d until early in the morning of the 11th, without any change taking place either in local or constitutional symptoms, when he began to complain of some difficulty of breathing, and felt conscious of approaching dissolution. In the course of an hour or two after feeling thus, he expired, without betraying any very striking symptom to which death could be directly imputed. According to the nurse's account his breathing was not very much obstructed, but gradually became shorter and shorter until life was extinct.

Post Mortem Examination.

The body was examined on the following day, when an enormous aneurism of the descending aorta was discovered. The aneurism commenced at the aorta, where passing through the crura of the diaphragm, and the sac extended on the right side to some distance below Poupart's ligament; on the left side the cyst was not so extensive, reaching only to some distance below the kidney. The tumour, in passing down the right side, had completely displaced the abdominal viscera, pushing them forward; the right kidney was driven into the right iliac region, where it constituted the hard circumscribed tumour which we described as observable at this part during the lifetime of the patient. And the kidney thus resting upon and in front of the aneurismal sac, the pulsations were consequently not readily felt as in the loin, where only a thin covering intervened between the hand and the tumour. On the left side, also, the aneurismal sac had displaced the kidney, throwing it forward on the vertebral column. The whole circumference of the aorta (as it lay on the spine) appeared to be dilated to about twice its natural size from its commencement, as abdominal aorta to that part at which the renal arteries are given off. It seemed, however, as if the aneurismal sac had emanated from the back part of the aorta—forming, as it were, an appendix; the cyst apparently commencing at this part, had gradually pursued its course directly downward on the spine for some distance, when it principally traversed to the right side, making a more limited progress on the left—the extent to which it reached on each side we have already stated. The cyst was formed of condensed cellular membrane, and varied in density; in removing the parts two small openings were made in the sac; it was seen to be filled with coagulated blood, but which was not deposited in layers. We have said that the whole circumference of the aorta appeared (as lying upon the spine) dilated to a certain extent; of the immediate state of the coats of the artery at its back part (whence the aneurismal sac appeared to arise) we cannot speak confidently, so as to be enabled to say how far the aorta contributed to the formation of the aneurismal sac.

The vena cava was pushed far away to the right side of the aorta; the sigmoid flexure of the colon was removed from its natural situation to the opposite side of the body, and all the intestines had suffered so much compression, that their calibre was greatly diminished; the stomach was not larger than a natural sized colon, and the latter mentioned intestine was about equal in size to the ileum.

The immediate cause of death was not clearly ascertained; there did not appear to be (as far as the examination went) any evidence of the cyst having given way. The parts however being removed for the purpose of making a preparation, it was impossible to pursue the dissection so minutely as we wished.

ST. BARTHOLOMEW'S HOSPITAL.

CASE OF RUPTURE OF A VEIN,

With consequent effusion of Blood under the Skin and Cellular Tissue, in which Amputation was about to be performed, from the supposition that the effusion was arterial.

A MAN presented himself at the Hospital during the last week, with his left leg very much swelled, tense, of a reddish colour, and very painful. The constitutional irritation was not so great as might have been expected from such appearances. He stated, that about three weeks since, on a dark night, in walking, he tripped, and struck his foot against some projecting substance. The blow was not so severe as to prevent him walking some distance, and to go to work the day following. In the evening, the leg was somewhat swelled and painful; and the next day these were so much increased, that he went to the Aldersgate Dispensary. As an abscess was supposed to be forming, he was bled to ℥xx, and had cold lotions to the limb. The swelling, redness, and pain continuing to increase, and not being able to go to the Dispensary, he applied to a neighbouring surgeon, who ordered the use of fomentations and poultices; getting worse, he came to the Hospital, in

ST. THOMAS'S HOSPITAL.

CASE OF CHOREA, (PRECEDED BY HEMIPLEGIA,) CURED BY CARBONATE OF IRON.

Wm. Walters, an unhealthy looking boy, about twelve years of age, was admitted into the Hospital on the 28th of September, under the care of Dr. Elliotson.

The boy stated that he had been ill upwards of six weeks, being first attacked suddenly in the night with loss of power on the right side of the body; to this shortly succeeded universal chorea, and the affection was so severe that the muscular agitation continued even during sleep. In the absence of Dr. Elliotson, his colleague, Dr. Scott, directed a purging powder, composed of scammony and calomel, to be given every second morning; and at the same time leeches to be applied to the temples.

This plan of treatment was continued without producing any amelioration until 9th of October, when Dr. Elliotson prescribed

Two drachms of the carbonate of iron,

to be taken twice a day.

On the 13th of October, the report was, that the chorea was rather less. On the 24th, no further improvement had taken place, and the carbonate of iron was directed to be taken three times a day. On the 7th of November, finding that the disease did not yield, Dr. Elliotson directed the carbonate of iron to be exhibited every six hours. The report made on the 20th states, that the patient is much better; he is quiet during sleep, and can hold objects more firmly. On the 28th he was still improving, and on the 15th of December there was scarcely any disease remaining. On the 25th of December he was reported as quite well, and left the Hospital shortly after.

The improvement which took place in the boy's countenance and bulk, during the exhibition of the carbonate of iron, was very striking, and its effect in controlling the disease was no less remarkable. When the boy was admitted, he could scarcely walk or stand, and the agitation of the whole body was very great, continuing, as we before observed, even in sleep. During the time that the patient was taking the carbonate of iron, he took aperient medicine only three times. We had an opportunity of seeing the boy about three weeks after he left the Hospital; he was then living as servant in a family, and was in perfect health.

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the above described state. The anterior and posterior tibial arteries being felt, and fluctuation detected over the external part of the calf, an incision was made on the supposition of contained coagula and pus. A considerable quantity of dark liquid, mixed with some coagulated blood, followed the withdrawal of the knife; a quantity of blood was lost from the incision during the night. The next day the leg and foot had a general red colour, were very hard to the feel, the patient complaining of pain, which had deprived him of sleep. As Mr. Lawrence could not feel pulsation in the vessels of the foot, he suspected there might be a wound of one of the tibial arteries. Mr. Earle was asked to see the case, and gave it as his opinion that the hæmorrhage depended upon rupture of a large vessel, and considered it impossible to secure the bleeding extremities of an artery in such a state of limb; and that as the recurrence of hæmorrhage was to be dreaded, amputation was the only means for the salvation of life. As Mr. Lawrence concurred in opinion, the operation was determined on; but there being no pressing necessity for immediate amputation, and the patient betraying a temporary unwillingness to its performance, it was deferred. The leg was in the same state the next day, when Mr. Lawrence, on pressure, squeezed out from the wound a considerable quantity of coagulated blood, and on introducing his finger found a large quantity contained between the *skin* and *muscles*. He conceived it might be some vein, and on that account enlarged the opening. No bleeding vessel could be detected; no further loss of blood took place, save slight effusion from a small vessel or two. This discovery did away with the idea of amputation, since when, granulations have sprung up, and the wound done well.

Two circumstances connected with this person's previous history, seem worthy of relation and attention. The first, that a considerable time ago the same leg had been hurt, and was followed by the same singular alarming appearances; but by rest, and the employment of fomentations, poultices, &c., was completely cured, without any remaining bad consequences, except weakness, which annoyed him for some time afterwards. The second peculiarity was, the man had a tooth extracted, which was followed by alarming hæmorrhage, continuing for *three* days in despite of the use of all the usual arresting means. These facts argue the possession of a peculiarly hæmorrhagic disposition.

TO CORRESPONDENTS.

Y. may rest assured that we are not careless spectators of the proceedings of the "Eating and Drinking Club."

If VINDEX will apply at our office, he may receive back his venom; he must perceive that the natural sweetness of our temper has been more than a match for his acidity.

We beg to remind A FRIEND TO REFORM, that he has omitted in the clause quoted, the following words: "other than and except such as shall or may have been altered, varied, or amended in and by this Act," consequently, *his* law is defective, and his letter therefore useless.

We are requested to state that Mr. PRICHARD, Surgeon, of Foot's Cray, Kent, is not *the* Mr. Prichard mentioned in the Bow Street Police Reports of last Monday.

We thank our friend H. F. G.—he must have seen an account of the experiments in our last Number, in the report of the proceedings of the London Medical Society.—A further discussion on the vacuum doctrine took place on Monday—Dr. Barry was present, and defended his opinions with energy and ingenuity. A full report of the speeches in our next.

THE AUTHOR of the "Tracts on the Medical Profession," has our best thanks for his prompt reply—he is correct—it is No. 1. that terminates at page 24 of the Appendix, and not No. 2, as formerly stated. We esteem the last paragraph of his letter, as the most valuable portion of his communication, as it bears the strongest testimony of his friendship.

We are much indebted to a "Constant Reader" for his very sensible remarks; we have seen the letter of Sir ANTHONY CARLISLE, and have read with the greatest attention the whole of the articles which have appeared in THE TIMES, on the establishment of a "Pauper Lunatic Asylum for the County of Middlesex." It is a subject of vast importance, and requires the deepest consideration. Should the proposal be finally adopted, no effort of ours shall be wanting to render it accessible to the Medical Student, and in a manner that ALL *public* Medical Institutions *ought to be*—viz.—free of cost.

HECTOR—E. R. Y.—E. G.—PHARMACOPOLA—Y. U.—JUSTICE, and MEDICUS, are under consideration.

We have not forgotten the "CIRCULAR," nor the valuable historical letter of MEDICO-CHIRURGUS.